

SONY

KV-2782A

MODEL

SERVICE MANUAL

KV-27VX1P

RM-646/SS-X4(PX)

SERVICE MANUAL

PX Model
Chassis No. SCC-A57A-A



VX CHASSIS

December, 1986

SPECIFICATIONS

Television standard	CCIR system B/G and H	CCIR system I	EIA system M
Color system	European PAL	UK PAL	American NTSC
Channel coverage			
Low VHF band	VHF: E2-E4 Cable TV: S1-S3, M1	—	VHF: A2-A6, J1-J3
High VHF band	VHF: E5-E12 Cable TV: M2-M10, U11-U20	—	VHF: A7-A13, J4-J12 Cable TV: A-8 to W
UHF	E21-E68	B21-B68	A14-A78, J13-J62

Picture tube

KV-27VX1P
27-inch (approx. 68 cm) Trinitron tube (approx. 64 cm picture measured diagonally) 114-degree deflection

Peak music power output

140 W

Inputs

VIDEO-1, -2, -3

VIDEO:

BNC connector, 1 Vp-p, 75 ohm

AUDIO:

phono jack, -5 dBs, high impedance

Output

MONITOR OUT

VIDEO:

BNC connector, 1 Vp-p, 75 ohm

AUDIO:

phono jack, -5 dBs, low impedance

Power requirements

110-240 V AC, 50/60 Hz

	KV-27VX1P
Power consumption	165 W
Dimensions	636 × 563 × 471.5 mm (w/h/d) (250 ¹ / ₂ × 22 ¹ / ₄ × 185 ³ / ₄ inches)
Weight	42 kg (99 lb 4 oz)

Accessories supplied

Speakers (1 pair)

Remote Commander RM-646 with 2 IEC designation R6 batteries (1)

UHF/VHF mixer EAC-53 (1)

Power cord plug adaptor (1)

BNC connector (1)

Design and specifications are subject to change without notice.



MICROFILM


TRINITRON® COLOR TV
SONY®

CTV

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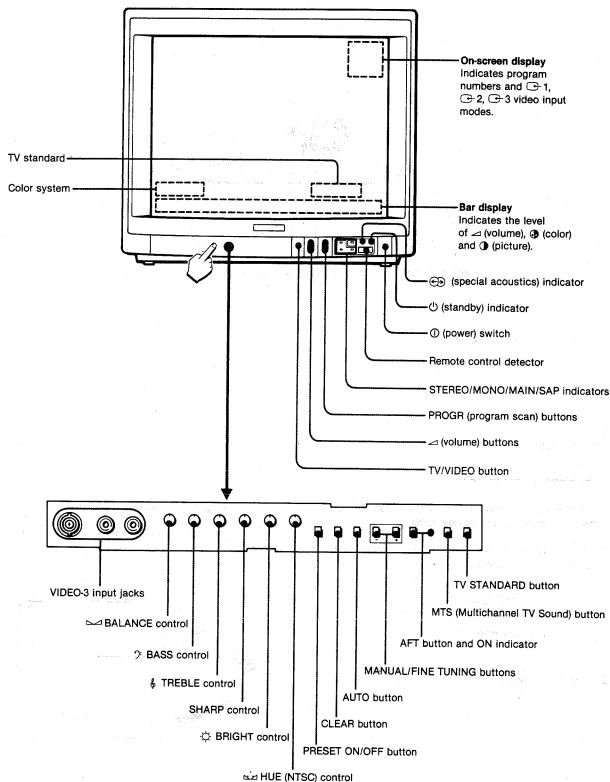
SAFETY-RELATED COMPONENT WARNING !!

COMPONENTS IDENTIFIED BY SHADING AND MARK  ON THE SCHEMATIC DIAGRAMS, EXPLODED VIEWS AND IN THE PARTS LIST ARE CRITICAL TO SAFE OPERATION. REPLACE THESE COMPONENTS WITH SONY PARTS WHOSE PART NUMBERS APPEAR AS SHOWN IN THIS MANUAL OR IN SUPPLEMENTS PUBLISHED BY SONY. CIRCUIT ADJUSTMENTS THAT ARE CRITICAL TO SAFE OPERATION ARE IDENTIFIED IN THIS MANUAL. FOLLOW THESE PROCEDURES WHENEVER CRITICAL COMPONENTS ARE REPLACED OR IMPROPER OPERATION IS SUSPECTED.

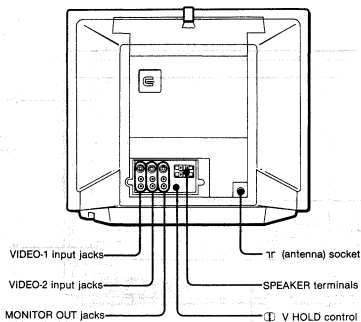
SECTION 1 OUTLINE

1-1. LOCATION OF CONTROLS

Front



Rear

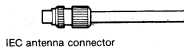


1-2. SET-UP

ANTENNA CONNECTION

To connect a VHF antenna or a combination VHF/UHF antenna—round 75-ohm coaxial cable

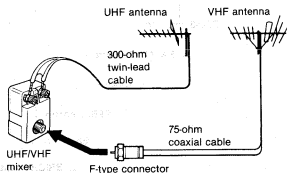
- 1 Attach the antenna end to an IEC antenna connector (commercially available).



- 2 Plug the connector into the ♂ (antenna) socket.

To connect both VHF and UHF antennas

- 1 Attach the antenna ends to the supplied UHF/VHF mixer.



- 2 Plug the mixer into the ♂ (antenna) socket.

SECTION 2

CIRCUIT ADJUSTMENTS

2-1. SAFETY RELATED ADJUSTMENTS

■ R834 CONFIRMATION METHOD (HOLD-DOWN CONFIRMATION) AND READJUSTMENT

The following adjustment should always be performed when replacing the following components (marked with ■ on the schematic diagram).

C825, C831, C832, C833, C834, C835, C836, C837, C856, C857, C858, R836, R837, R838, R839, R840, R841, R842, R843, R857, R858, R859, D831, D832, C831, C832, C833, C834, IC501.

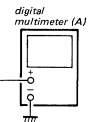
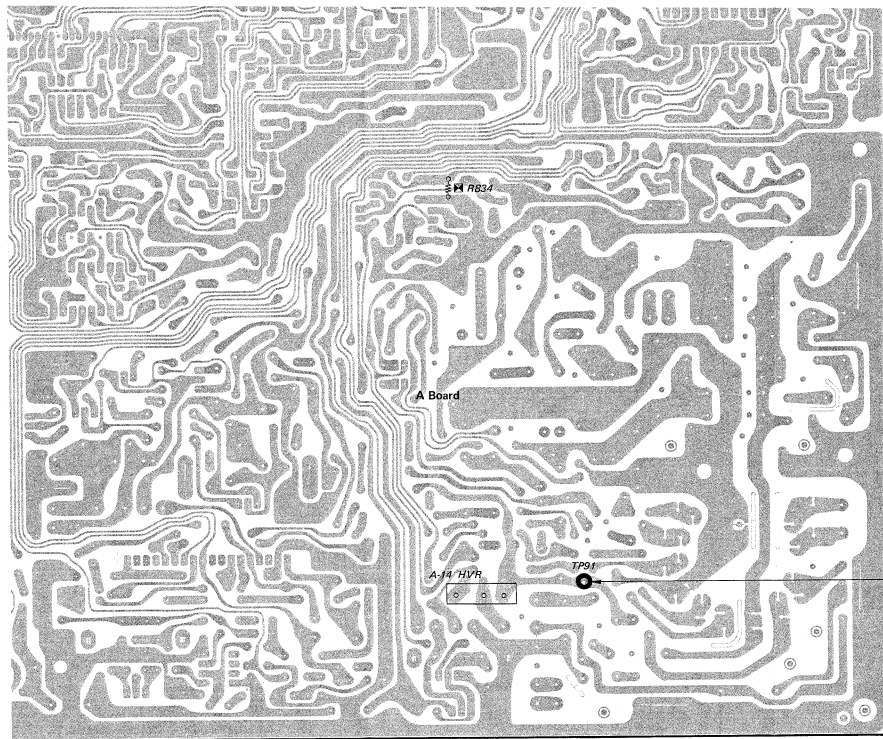
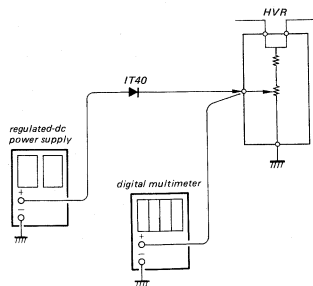
1. Preparation before confirmation.

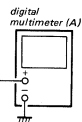
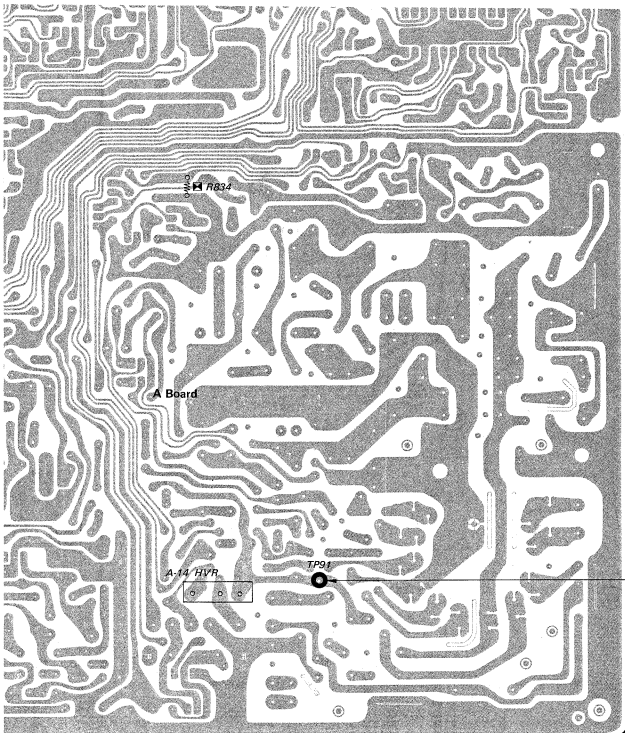
- (1) Turn POWER switch ON, and receive dot signals and set the PICTURE and BRIGHTNESS controls to minimum.
- (2) Confirm that the voltage of the protector terminal of H.V.R is 15.50 \pm 2.50 V dc when the set is operating normally with 120VAC supply.


2. Hold-down operation confirmation.

- (1) Turn POWER switch ON, and receive entirely white signals and adjust IABL current to 1650 \pm 30 μ A with PICTURE and BRIGHTNESS etc. controls.
 - (2) Apply DC voltage of over 14.80 V gradually to the protector terminal of H.V.R via IT40 from the DC stabilized POWER source. Confirm that the minimum voltage is less than 14.80 V whereby the raster disappears during operation of hold-down circuit.
- Note:** When the hold-down circuit starts operating switch OFF the POWER of the set immediately.
- (3) Turn POWER switch ON, and receive dot signals and adjust IABL current to 220 \pm 50 μ A with PICTURE and BRIGHTNESS etc. controls.
 - (4) Apply DC voltage of over 16.00 V gradually to the protector terminal of H.V.R via IT40 from the DC stabilized POWER source. Confirm that the minimum voltage is less than 16.00 V whereby the raster disappears during operation of hold-down circuit.

Note: When the hold-down circuit start operating switch OFF the POWER of the set immediately.



***B MAX ADJUSTMENT****H R683**


The following adjustment should always be performed when replacing the following components (marked with  on the schematic diagram).

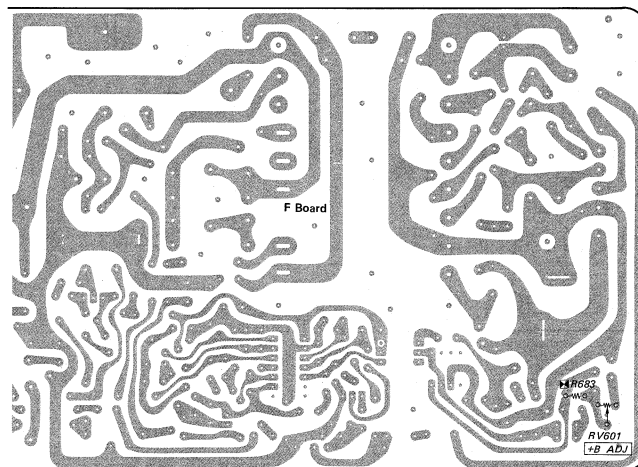
R634, R654, R655, R656, R671, R683, RV601, D654, D655, IC601, IC602, IC651.

1. Feed in a dot pattern signals.
2. Set the controls as shown below.
 PICTURE control minimum
 BRIGHTNESS control minimum
3. Readjust the variable auto transformer for 264 ± 5.0 V ac on the digital multimeter.
4. Adjust RV601 so that the voltage of digital multimeter (A) is maximum.
5. Confirm that the voltage reading on the digital multimeter (A) is less than 141.0 V dc.
6. If the step 5 is not satisfied, select the value of R683 so that the specification is met.

CONFIRMATION WHEN REPLACING H.V.R (HIGH VOLTAGE REGISTOR)

The following adjustments should always be performed with reference to whether an X-ray radiation control circuit is connected or not, when replacing H.V.R (High Voltage Registor).

- * This check is to be performed when H.V.R only is replaced, and has no relation to the hold-down circuit re-adjustment for replacement of parts marked .
1. When the set is operation normally with 120VAC supply, confirm that the voltage of the protector terminal of H.V.R is 15.50 ± 2.50 V dc.



SECTION 3
EXPLODED VIEWS

NOTE:

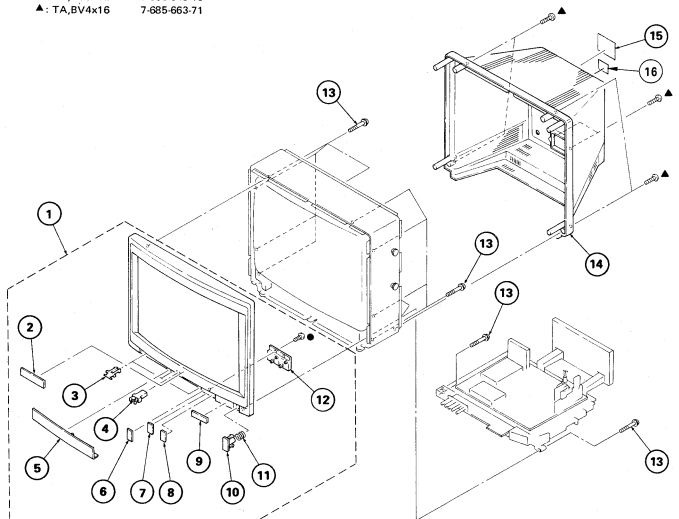
- Items with no part number and no description are not stocked because they are seldom required for routine service.
- The construction parts of an assembled part are indicated with a collation number in the remark column.

- Items marked * ** are not stocked since they are seldom required for routine service. Some delay should be anticipated when ordering these items.

The components identified by shading and mark A are critical for safety. Replace only with part number specified.

3-1. BEZEL

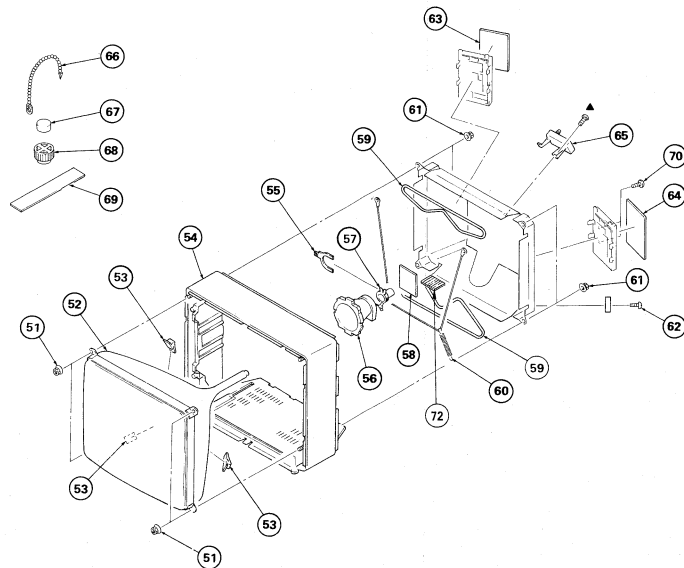
- ▲ TA,BV3x12 7-685-648-19
- ▲ TA,BV4x16 7-685-663-71



No.	Part No.	Description	Remark	No.	Part No.	Description	Remark
1	X-4382-104-1	BEZEL ASSY		9	4-382-128-01	WINDOW (B)	
2	*4-374-115-01	EMBEW, SONY		10	4-382-106-01	BUTTON, POWER	
3	3-662-365-00	SHAFT (S), DOOR		11	*1-660-863-00	SPRING, COMPRESSION	
4	4-374-714-01	CATCH, PUSH		12	4-378-278-01	BUTTON (B), M.P.T.1	
5	4-382-129-01	DOOR, CONTROL		13	4-319-520-00	SCREW, SPECIAL (*PW4X30)	
6	4-382-108-01	BUTTON, TV/WIDE		14	X-4382-103-1	COVER ASSY, REAR	
7	4-382-107-01	BUTTON, UP/DOWN		15	*4-382-126-01	LABEL, MODEL NUMBER (J)	
8	4-382-107-11	BUTTON, UP/DOWN		16	4-010-023-05	LABEL, X-RAY	

3-2. CRT

- ▲ TA,BV4x16

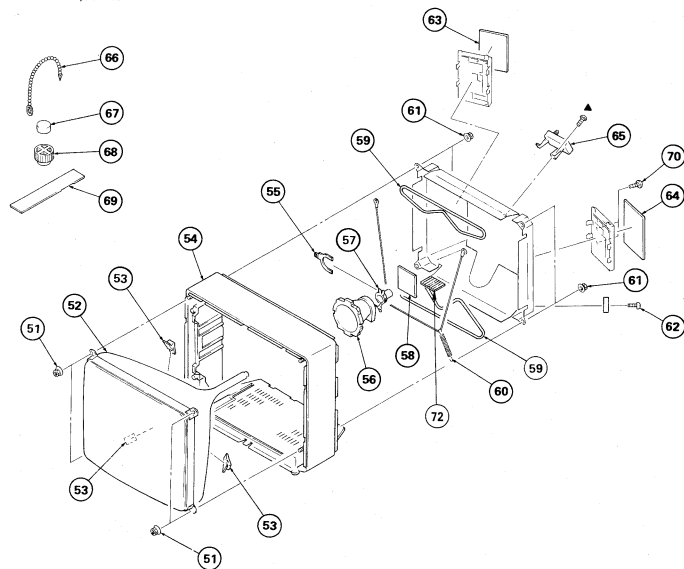


No.	Part No.	Description	Remark	No.	Part No.	Description	Remark	No.
51	X-4374-104-1	SCREW (B) ASSY, ORNAMENTAL		62	▲1-205-899-11	RES. CEMENT WIREWOUND 3.9		101
52	▲8-736-652-05	CRT (A64KJ10X)		63	*A-1135-439-A	B BOARD, COMPLETE		102
53	3-703-003-00	SPACER, DY		64	*A-1240-379-A	F BOARD, COMPLETE		103
54	X-4382-102-1	CABINET ASSY		65	▲1-230-212-11	RESISTOR ASSY, HIGH-VOLTAGE		104
55	1-452-277-12	MAGNET, BMC		66	4-308-870-00	CLIP, LEAD WIRE		105
56	▲1-451-255-11	DEFLECTION YOKE (SY-164)		67	1-452-033-00	MAGNET, DISK; 10MM Ø		106
57	▲1-452-391-11	NECK ASSY, CRT (NA305)		68	1-452-094-00	MAGNET, ROTATABLE DISK; 15MM Ø		107
58	*A-1330-737-A	C BOARD, COMPLETE		69	X-4308-815-00	PERMALLOY ASSY, CONVERGENCE		108
59	▲1-426-289-11	COIL, DEMAGNETIZATION		70	4-302-428-00	HEAD, WASHER, TAPPING SCREW		109
60	4-303-774-03	SPRING		71	▲1-230-212-11	RESISTOR ASSY, HIGH-VOLTAGE		
61	4-306-034-00	FLANGE NUT, (B) 5MM		72	4-382-133-01	CUSHION (B)		

The components identified by shading and mark A are critical for safety. Replace only with part number specified.

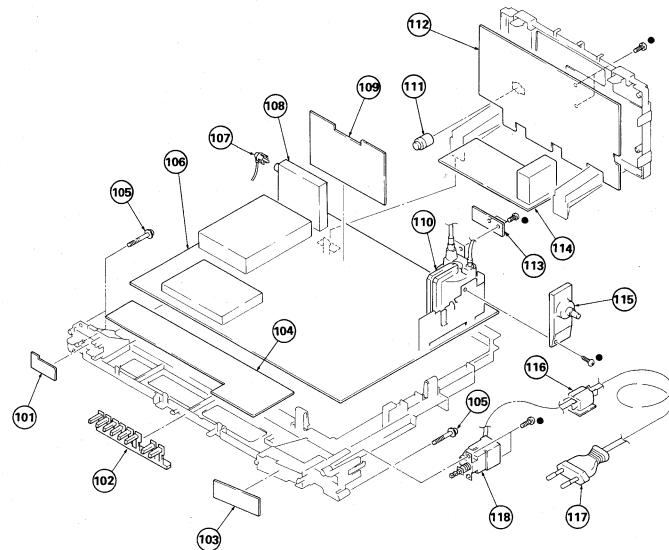
3-2. CRT

▲: TA, BV4x16



3-3. CHASSIS

●: TA, BV3x12 7-685-648/19



No.	Part No.	Description
51	4-4374-104-1	SCREW (B) ASSY, ORNAMENTAL
52	▲ 8-795-652-05	CRT (A64X310X)
53	3-703-003-00	SPACER, DY
54	4-4382-102-7	CABINET ASSY
55	1-452-277-12	MAGNET, BMC
56	▲ 1-451-255-11	DEFLECTION YOKE (SY-164)
57	▲ 1-452-391-11	NECK ASSY, CRT (MA305)
58	▲ 1-130-737-A	C BOARD, COMPLETE
59	▲ 1-426-289-11	COIL, DEMAGNETIZATION
60	4-303-774-03	SPRING
61	4-306-034-00	FLANGE NUT, (B) 5MM

No.	Part No.	Description
62	▲ 1-205-899-11	RES, CEMENT WIREWOUND 3.9
63	▲ 1-115-439-A	B BOARD, COMPLETE
64	▲ 1-1245-379-A	F BOARD, COMPLETE
65	▲ 1-230-212-11	RESISTOR ASSY, HIGH-VOLTAGE
66	4-306-610-00	C/P, LEAD WIRE
67	1-452-032-00	MAGNET, DISK; 10MM Ø
68	1-452-094-00	MAGNET, ROTATABLE DISK; 15MM Ø
69	2-4308-015-0	PERMA-DY ASSY, CONVERGENCE
70	4-302-428-00	HEAD, WASHER, TAPPING SCREW
71	▲ 1-230-212-11	RESISTOR ASSY, HIGH-VOLTAGE
72	4-382-133-01	CUSHION (G)

The components identified by shading and mark ▲ are critical for safety. Replace only with part number specified.

No.	Part No.	Description
101	▲ 1-619-600-11	K2 BOARD
102	4-378-277-01	BUTTON (A), M/PTI
103	▲ 1-619-602-11	H2 BOARD
104	▲ 1-619-601-11	H1 BOARD
105	4-319-520-00	SCREW, SPECIAL (PMAX30)
106	▲ 1-296-266-A	A BOARD, COMPLETE
107	▲ 1-597-066-00	CABLE, P-P
108	1-463-661-11	TUNER, ET (BT-886)
109	▲ 1-1340-933-A	D BOARD, COMPLETE

No.	Part No.	Description
110	▲ 1-439-332-52	TRANSFORMER ASSY, FLYBACK
111	▲ 1-463-204-12	SOCKET, ANTENNA (PAU/SECAM)
112	▲ 1-394-113-A	K1 BOARD, COMPLETE
113	▲ 1-620-095-11	OF BOARD
114	▲ 1-381-057-A	Y BOARD, COMPLETE
115	▲ 1-237-280-11	RESISTOR ASSY, HIGH-VOLTAGE
116	▲ 4-022-115-01	HOODER, AC CORD
117	▲ 1-834-017-71	CORD, POWER
118	▲ 1-554-966-12	SWITCH, PUSH (AC POWER)(1 KEY)

The components identified by shading and mark ▲ are critical for safety. Replace only with part number specified.

SECTION 4
ELECTRICAL PARTS LIST

B

NOTE:

The components identified by shading and mark Δ are critical for safety. Replace only with part number specified.

Items marked "*" are not stocked since they are seldom required for routine service. Some delay should be anticipated when ordering these items.

When indicating parts by reference number, please include the board name.

- All variable and adjustable resistors have characteristic curve B, unless otherwise noted.

RESISTORS

- All resistors are in ohms
- F: nonflammable

COILS

- MH: mH, μ H: μ H

- The components identified by \boxtimes in this manual have been carefully factory-selected for each set in order to satisfy regulations regarding X-ray radiation. Should replacement be required, replace only with the value originally used.

- CAPACITORS
- M: μ F, PF: pF

Ref. No.	Part No.	Description	Remark	Ref. No.	Part No.	Description	Remark
*A-1135-439-A B BOARD, COMPLETE *****				FILTER			
CONNECTOR				CF351	1-409-344-00	CERAMIC TRAP 3.58MHZ	
				CF361	1-409-332-00	CERAMIC TRAP (4.5MHZ)	
				TRIMMER			
B1	*1-566-063-11	PIN, CONNECTOR 11P		CV358	1-141-181-11	CAP, TRIMMER	
B3	*1-564-443-11	PLUG, CONNECTOR (2.5MM) 7P		CV443	1-141-181-11	CAP, TRIMMER	
B5	*1-566-061-11	PIN, CONNECTOR 9P		DIODE			
CAPACITOR				D305	8-719-911-19	DIODE 1SS119	
C301	1-124-445-00	ELECT 100MF 20% 16V		D307	8-719-911-19	DIODE 1SS119	
C303	1-123-369-00	ELECT 4.7MF 20% 25V		D328	8-719-911-19	DIODE 1SS119	
C304	1-124-907-00	ELECT 10MF 20% 50V		D341	8-719-911-19	DIODE 1SS119	
C305	1-106-184-00	MYLAR 0.0033MF 10% 50V		D351	8-719-911-19	DIODE 1SS119	
C308	1-124-904-00	ELECT 2.2MF 20% 50V		D352	8-719-911-19	DIODE 1SS119	
C309	1-102-865-00	CERAMIC 8PF 0.5PF 50V		D353	8-719-911-19	DIODE 1SS119	
C310	1-124-907-00	ELECT 10MF 20% 50V		D398	8-719-911-19	DIODE 1SS119	
C311	1-108-841-91	MYLAR 0.022MF 10% 50V		DELAY LINE			
C312	1-108-841-91	MYLAR 0.022MF 10% 50V		DL301	1-415-122-31	DELAY LINE, 1H (PAL)	
C313	1-102-074-00	CERAMIC 0.001MF 10% 50V		IC			
C316	1-136-169-00	FILM 0.22MF 5% 50V		IC300	8-752-030-86	IC CXA1001AP	
C317	1-102-074-00	CERAMIC 0.001MF 10% 50V		IC450	8-759-135-80	IC UPC358C	
C320	1-124-445-00	ELECT 100MF 20% 16V		COIL			
C322	1-101-005-00	CERAMIC 0.022MF 10% 50V		L327	1-408-603-00	MICRO INDUCTOR 10UH	
C324	1-124-902-00	ELECT 0.47MF 20% 50V		L328	1-408-603-00	MICRO INDUCTOR 10UH	
C327	1-102-525-00	CERAMIC 68PF 5% 50V		L329	1-408-603-00	MICRO INDUCTOR 10UH	
C328	1-102-525-00	CERAMIC 68PF 5% 50V		L333	1-408-416-00	MICRO INDUCTOR 39UH	
C329	1-102-525-00	CERAMIC 68PF 5% 50V		L337	1-408-244-00	MICRO INDUCTOR 18MMH	
C330	1-124-904-00	ELECT 2.2MF 20% 50V		L354	1-408-607-00	MICRO INDUCTOR 22UH	
C331	1-124-903-00	ELECT 1MF 20% 50V		L360	1-408-619-00	MICRO INDUCTOR 220UH	
C333	1-102-518-00	CERAMIC 33PF 5% 50V		L378	1-408-415-00	MICRO INDUCTOR 33UH	
C334	1-124-904-00	ELECT 2.2MF 20% 50V		L473	1-408-602-21	MICRO INDUCTOR 8.2UH	
C336	1-124-904-00	ELECT 2.2MF 20% 50V		TRANSISTOR			
C337	1-102-110-00	CERAMIC 220PF 10% 50V		Q351	8-729-178-54	TRANSISTOR 2SC2785	
C340	1-124-475-11	ELECT 470MF 20% 16V		Q352	8-729-178-54	TRANSISTOR 2SC2785	
C341	1-124-903-00	ELECT 1MF 20% 50V		Q353	8-729-178-54	TRANSISTOR 2SC2785	
C346	1-124-903-00	ELECT 1MF 20% 50V		Q354	8-729-900-36	TRANSISTOR DT124ES	
C347	1-102-110-00	CERAMIC 220PF 10% 50V		Q364	8-729-178-54	TRANSISTOR 2SC2785	
C350	1-101-005-00	CERAMIC 0.022MF 10% 50V		Q365	8-729-178-54	TRANSISTOR 2SC2785	
C360	1-102-865-00	CERAMIC 8PF 0.5PF 50V		Q366	8-729-178-54	TRANSISTOR 2SC2785	
C365	1-102-125-00	CERAMIC 0.0047MF 10% 50V		Q369	8-729-178-54	TRANSISTOR 2SC2785	
C367	1-101-005-00	CERAMIC 0.022MF 10% 50V		Q380	8-729-178-54	TRANSISTOR 2SC2785	
C369	1-123-332-00	ELECT 47MF 20% 16V		Q381	8-729-178-54	TRANSISTOR 2SC2785	
C370	1-101-005-00	CERAMIC 0.022MF 10% 50V		Q382	8-729-178-54	TRANSISTOR 2SC2785	
C391	1-101-004-00	CERAMIC 0.01MF 50V		Q387	8-729-117-54	TRANSISTOR 2SA1175	
C384	1-102-822-00	CERAMIC 390PF 5% 50V		Q388	8-729-900-36	TRANSISTOR DT124ES	
C387	1-102-074-00	CERAMIC 0.001MF 10% 50V		Q450	8-729-117-54	TRANSISTOR 2SA1175	
C422	1-124-902-00	ELECT 0.47MF 20% 50V		Q470	8-729-178-54	TRANSISTOR 2SC2785	
C441	1-124-902-00	ELECT 0.47MF 20% 50V					
C452	1-136-169-00	FILM 0.22MF 5% 50V					
C453	1-124-445-00	ELECT 100MF 20% 16V					
C472	1-108-837-00	MYLAR 0.01MF 10% 50V					
C490	1-123-332-00	ELECT 47MF 20% 16V					

B

Ref.No.	Part No.	Description	Remark	Ref.No.	Part No.	Description	Remark
RESISTOR							
R301	1-247-823-00	CARBON	470 5% 1/6W	R360	1-247-845-00	CARBON	3.9K 5% 1/6W
R303	1-249-441-11	CARBON	100K 5% 1/6W	R361	1-247-845-00	CARBON	3.9K 5% 1/6W
R304	1-247-869-00	CARBON	39K 5% 1/6W	R362	1-249-433-11	CARBON	22K 5% 1/6W
R305	1-247-883-00	CARBON	150K 5% 1/6W	R363	1-249-417-11	CARBON	1K 5% 1/6W
R306	1-249-435-11	CARBON	33K 5% 1/6W	R364	1-249-423-11	CARBON	3.3K 5% 1/6W
R308	1-249-435-11	CARBON	33K 5% 1/6W	R365	1-249-437-11	CARBON	47K 5% 1/6W
R311	1-247-875-00	CARBON	68K 5% 1/6W	R366	1-247-887-00	CARBON	220K 5% 1/6W
R312	1-247-875-00	CARBON	68K 5% 1/6W	R367	1-249-433-11	CARBON	22K 5% 1/6W
R313	1-247-839-00	CARBON	2.2K 5% 1/6W	R368	1-249-433-11	CARBON	22K 5% 1/6W
R314	1-249-435-11	CARBON	33K 5% 1/6W	R369	1-247-891-00	CARBON	330K 5% 1/6W
R315	1-249-433-11	CARBON	22K 5% 1/6W	R371	1-249-433-11	CARBON	22K 5% 1/6W
R316	1-249-429-11	CARBON	10K 5% 1/6W	R372	1-249-433-11	CARBON	22K 5% 1/6W
R317	1-247-839-00	CARBON	2.2K 5% 1/6W	R374	1-249-435-11	CARBON	33K 5% 1/6W
R318	1-247-815-00	CARBON	220 5% 1/6W	R375	1-249-435-11	CARBON	33K 5% 1/6W
R319	1-249-433-11	CARBON	22K 5% 1/6W	R376	1-249-423-11	CARBON	3.3K 5% 1/6W
R321	1-247-713-11	CARBON	1K 5% 1/4W	R378	1-249-414-11	CARBON	560 5% 1/6W
R323	1-249-441-11	CARBON	100K 5% 1/6W	R379	1-247-795-00	CARBON	33 5% 1/6W
R324	1-249-441-11	CARBON	100K 5% 1/6W	R380	1-249-417-11	CARBON	1K 5% 1/6W
R326	1-249-441-11	CARBON	100K 5% 1/6W	R381	1-249-433-11	CARBON	22K 5% 1/6W
R327	1-249-423-11	CARBON	3.3K 5% 1/6W	R382	1-249-423-11	CARBON	3.3K 5% 1/6W
R328	1-249-423-11	CARBON	3.3K 5% 1/6W	R383	1-247-829-00	CARBON	820 5% 1/6W
R329	1-249-423-11	CARBON	3.3K 5% 1/6W	R384	1-247-809-00	CARBON	120 5% 1/6W
R330	1-247-883-00	CARBON	150K 5% 1/6W	R385	1-249-417-11	CARBON	1K 5% 1/6W
R331	1-247-903-00	CARBON	1K 5% 1/6W	R386	1-247-815-00	CARBON	220 5% 1/6W
R332	1-247-889-00	CARBON	270K 5% 1/6W	R387	1-247-851-00	CARBON	6.8K 5% 1/6W
R333	1-249-414-11	CARBON	560 5% 1/6W	R388	1-247-891-00	CARBON	330K 5% 1/6W
R335	1-249-419-11	CARBON	1.5K 5% 1/6W	R391	1-249-435-11	CARBON	33K 5% 1/6W
R336	1-247-815-00	CARBON	220 5% 1/6W	R392	1-249-417-11	CARBON	1K 5% 1/6W
R337	1-247-851-00	CARBON	6.8K 5% 1/6W	R398	1-249-441-11	CARBON	100K 5% 1/6W
R338	1-249-423-11	CARBON	3.3K 5% 1/6W	R404	1-249-435-11	CARBON	33K 5% 1/6W
R339	1-247-839-00	CARBON	2.2K 5% 1/6W	R450	1-249-425-11	CARBON	4.7K 5% 1/6W
R340	1-247-851-00	CARBON	6.8K 5% 1/6W	R451	1-249-405-11	CARBON	100 5% 1/6W
R341	1-249-422-11	CARBON	2.7K 5% 1/6W	R452	1-249-414-11	CARBON	560 5% 1/6W
R342	1-247-853-00	CARBON	8.2K 5% 1/6W	R453	1-249-414-11	CARBON	560 5% 1/6W
R343	1-249-433-11	CARBON	22K 5% 1/6W	R454	1-249-429-11	CARBON	10K 5% 1/6W
R344	1-249-440-11	CARBON	82K 5% 1/6W	R455	1-247-869-00	CARBON	39K 5% 1/6W
R345	1-249-437-11	CARBON	47K 5% 1/6W	R456	1-247-887-00	CARBON	220K 5% 1/6W
R346	1-247-849-00	CARBON	5.6K 5% 1/6W	R457	1-247-869-00	CARBON	39K 5% 1/6W
R347	1-247-819-00	CARBON	330 5% 1/6W	R460	1-249-435-11	CARBON	33K 5% 1/6W
R348	1-247-819-00	CARBON	330 5% 1/6W	R471	1-247-851-00	CARBON	6.8K 5% 1/6W
R349	1-247-819-00	CARBON	330 5% 1/6W	R472	1-249-417-11	CARBON	1K 5% 1/6W
R350	1-249-425-11	CARBON	4.7K 5% 1/6W	R473	1-247-821-00	CARBON	390 5% 1/6W
R351	1-247-839-00	CARBON	2.2K 5% 1/6W	VARIABLE RESISTOR			
R352	1-249-417-11	CARBON	1K 5% 1/6W	RV301	1-230-624-51	RES, ADJ, CARBON	220
R353	1-247-819-00	CARBON	330 5% 1/6W	RV302	1-230-631-11	RES, ADJ, CARBON	22K
R354	1-247-819-00	CARBON	330 5% 1/6W	RV303	1-230-630-11	RES, ADJ, CARBON	10K
R355	1-249-429-11	CARBON	10K 5% 1/6W	TRANSFORMER			
R356	1-249-433-11	CARBON	22K 5% 1/6W				
R357	1-249-433-11	CARBON	22K 5% 1/6W				
R358	1-249-433-11	CARBON	22K 5% 1/6W				
R359	1-249-441-11	CARBON	100K 5% 1/6W	T301	1-404-524-11	DAT	

B

F

Ref.No.	Part No.	Description	Remark	Ref.No.	Part No.	Description	Remark
<u>CRYSTAL</u>				<u>DIODE</u>			
X358	1-527-396-00	CRYSTAL, OSC		D601	8-719-503-06	DIODE 3SW6802	
X443	1-527-345-00	CRYSTAL, OSC		D611	8-719-118-34	DIODE RD110E-B	
<u>MODULE</u>				D612	8-719-924-06	DIODE ERC24-06S	
YCM301	1-235-833-11	YC MODULE		D613	8-719-924-06	DIODE ERC24-06S	
*****				D614	8-719-924-06	DIODE ERC24-06S	
*A-1245-379-A F BOARD, COMPLETE				D615	8-719-109-97	DIODE RD5.8ES-B2	
*****				D616	8-719-924-06	DIODE ERC24-06S	
<u>CAPACITOR</u>				D617	8-719-911-19	DIODE 1SS119	
C600	1-136-360-51	FILM 0.022MF 20% 250V		D619	8-719-924-06	DIODE ERC24-06S	
C601	1-136-360-51	FILM 0.022MF 20% 250V		D622	8-719-110-46	DIODE RD16S-83	
C602	1-161-964-81	CERAMIC 0.0047MF 250V		D623	8-719-102-36	DIODE RD36E-11	
C603	1-161-964-81	CERAMIC 0.0047MF 250V		D624	8-719-102-36	DIODE RD36E-11	
C604	1-161-964-81	CERAMIC 0.0047MF 250V		D651	8-719-300-33	DIODE RU-3AM	
C605	1-161-964-81	CERAMIC 0.0047MF 250V		D652	8-719-924-06	DIODE ERC24-06S	
C606	1-125-287-00	ELECT(BLOCK) 430MF 400V		D653	8-719-933-13	DIODE ERC35-02	
C613	1-123-946-00	ELECT 4.7MF 20% 250V		D654	8-719-911-19	DIODE 1SS119	
C614	1-136-064-00	FILM 0.002MF 3% 2KV		D655	8-719-110-31	DIODE RD12ES-B2	
C615	1-129-765-00	FILM 0.047MF 10% 200V		D657	8-719-109-88	DIODE RD5.6ES-B1	
C616	1-124-798-11	ELECT 1MF 20% 160V		D658	8-719-911-19	DIODE 1SS119	
C617	1-124-042-91	ELECT 0.47MF 20% 50V		D659	8-719-924-06	DIODE ERC24-06S	
C618	1-162-318-11	CERAMIC 0.001MF 10% 500V		<u>CONNECTOR</u>			
C619	1-124-896-00	ELECT 33MF 20% 15V		F1	*1-506-349-21	3P PLUG (L)	
C620	1-124-443-00	ELECT 100MF 20% 10V		F2	*1-508-765-00	3P PLUG (M)	
C621	1-136-145-00	FILM 0.0022MF 5% 50V		F3	*1-508-786-00	2P PLUG (M)	
C622	1-104-067-00	POLYSTYRENE 390PF 5% 50V		F4	*1-508-767-00	5P PLUG	
C623	1-124-125-91	ELECT 22MF 20% 25V		F5	*1-564-353-00	PLUG, CONNECTOR (2.5MM) 2P	
C624	1-162-318-11	CERAMIC 0.001MF 10% 500V		F6	*1-506-371-00	2P PLUG (L)	
C625	1-123-607-00	ELECT 0.1MF 20% 50V		<u>FUSE</u>			
C626	1-162-115-00	CERAMIC 330PF 10% 2KV		F601	1-532-299-11	FUSE, TIME-LAG 5A/250V	
C651	1-125-295-00	ELECT(BLOCK) 560MF 20% 200V			1-533-189-11	HOLDER, FUSE/F601	
C652	1-162-115-00	CERAMIC 330PF 10% 2KV		<u>IC</u>			
C654	1-102-030-00	CERAMIC 330PF 10% 500V		IC601	8-759-100-75	IC UPC1394C	
C656	1-102-030-00	CERAMIC 330PF 10% 500V		IC602	8-719-939-00	PC1115	
C657	1-162-115-00	CERAMIC 330PF 10% 2KV		IC651	8-759-927-49	IC 189431	
C658	1-124-038-00	ELECT 1MF 20% 50V		<u>NEON LAMP</u>			
C659	1-108-833-00	MYLAR 0.0047MF 10% 50V		NL601	1-519-402-11	LAMP, NEON	
C660	1-162-578-51	CERAMIC 0.0047MF 20% 400V		<u>TRANSISTOR</u>			
C661	1-162-578-51	CERAMIC 0.0047MF 20% 400V		Q611	8-729-168-82	TRANSISTOR 2SC2688	
C662	1-102-030-00	CERAMIC 330PF 10% 500V		Q612	8-729-168-82	TRANSISTOR 2SC2688	
C671	1-124-596-11	ELECT 2200MF 20% 15V		Q613	8-729-802-14	TRANSISTOR 2SC3460	
C673	1-124-789-11	ELECT 2200MF 20% 35V			4-302-428-00	HEAD, WASHER, TAPPING SCREW; Q613	
C674	1-124-607-11	ELECT 2200MF 20% 50V			4-363-414-00	SPACER, MICA; Q613	
C676	1-102-978-00	CERAMIC 220PF 5% 50V		Q614	8-729-168-82	TRANSISTOR 2SC2688	
C677	1-108-891-81	MYLAR 0.0082MF 10% 200V		Q615	8-729-178-54	TRANSISTOR 2SC2785	
C680	1-102-030-00	CERAMIC 330PF 10% 500V		Q617	8-729-178-54	TRANSISTOR 2SC2785	

The components identified by shading and mark **A** are critical for safety. Replace only with part number specified.

F

A

Ref.No.	Part No.	Description	Remark	Ref.No.	Part No.	Description	Remark
RESISTOR				VARIABLE RESISTOR			
R611	1-216-444-11	METAL OXIDE	82K 5% 1W F	RV501	1-230-624-51	RES, ADJ, CARBON 220	
R612	1-216-444-11	METAL OXIDE	82K 5% 1W F			SPARK GAP	
R613	1-249-496-11	CARBON	100K 5% 1/2W F			DISCHARGING GAP	
R614	1-215-922-11	METAL OXIDE	6.8K 5% 3W F			TRANSFORMER	
R615	1-246-529-00	CARBON	220K 5% 1/4W	T601	1-421-562-11	PLT	
R616	1-247-706-11	CARBON	330 5% 1/4W	T602	1-437-079-00	TRANSFORMER, HORIZONTAL DRIVE	
R617	1-247-719-11	CARBON	3.3K 5% 1/4W	T603	1-448-578-11	S.R.V.T.	
R618	1-247-789-00	CARBON	18 5% 1/6W			THERMISTOR	
R619	1-217-201-11	WIREWOUND	1.2 10% 2W F	TH611	1-800-954-00	THERMISTOR 5-3K	
R620	1-217-190-00	WIREWOUND	0.16 10% 2W F	THP601A	1-806-387-11	THERMISTOR (POSITIVE)	
R621	1-249-417-11	CARBON	1K 5% 1/6W	THP602A	1-806-387-11	THERMISTOR (POSITIVE)	
R622	1-249-434-11	CARBON	27K 5% 1/6W	THP611	1-807-598-11	THERMISTOR (POSITIVE)	
R623	1-215-457-00	METAL	33K 1% 1/6W				
R624	1-249-429-11	CARBON	10K 5% 1/6W				
R625	1-247-725-11	CARBON	33K 5% 1/4W				
R626	1-247-819-00	CARBON	330 5% 1/6W				
R627	1-247-873-00	CARBON	56K 5% 1/6W				
R628	1-215-469-00	METAL	100K 1% 1/6W				
R629	1-249-429-11	CARBON	10K 5% 1/6W				
R630	1-215-459-00	METAL	39K 1% 1/6W				
R631	1-247-845-00	CARBON	3.9K 5% 1/6W				
R632	1-247-753-11	CARBON	1.2K 5% 1/2W F				
R633	1-249-441-11	CARBON	100K 5% 1/6W				
R634	1-249-417-11	CARBON	1K 5% 1/6W				
R635	1-215-914-11	METAL OXIDE	330 5% 3W F				
R636	1-215-914-11	METAL OXIDE	330 5% 3W F				
R638	1-202-719-00	SOLID	1M 10% 1/2W				
R639	1-202-720-00	SOLID	1.2M 10% 1/2W				
R640	1-247-873-00	CARBON	56K 5% 1/6W				
R646	1-247-721-11	CARBON	4.7K 5% 1/4W				
R652	1-215-900-11	METAL OXIDE	22K 5% 2W F				
R653	1-249-417-11	CARBON	1K 5% 1/4W				
R654	1-246-523-00	CARBON	120K 5% 1/4W				
R655	1-214-777-00	METAL	100K 1% 1/4W				
R656	1-247-895-00	CARBON	470K 5% 1/6W				
R657	1-247-881-00	CARBON	120K 5% 1/6W				
R658	1-247-289-11	CARBON	8.2K 5% 1W				
R659	1-205-758-11	CEMENTED	100 10% 10W F				
R660	1-205-758-11	CEMENTED	100 10% 10W F				
R663	1-244-905-00	CARBON	22K 5% 1/2W				
R665	1-215-425-00	METAL	1.5K 1% 1/5W				
R666	1-249-470-11	CARBON	0.47 5% 1/2W F				
R669	1-249-443-11	CARBON	0.47 5% 1/4W F				
R671	1-215-415-00	METAL	560 1% 1/6W				
R680	1-215-914-11	METAL OXIDE	330 5% 3W F				
R681	1-215-914-11	METAL OXIDE	330 5% 3W F				
R682	1-216-486-00	METAL OXIDE	8.2K 5% 3W F				
R683	1-247-851-00	CARBON	6.8K 5% 1/6W				
R690	1-246-523-00	CARBON	150K 5% 1/4W				

The components identified by shading and mark A are critical for safety. Replace only with part number specified.

- The components identified by A in this manual have been carefully factory-selected for each set in order to satisfy regulations regarding X-ray radiation. Should replacement be required, replace only with the value originally used.

A

Ref.No.	Part No.	Description	Remark	Ref.No.	Part No.	Description	Remark
C017	1-123-820-00	ELECT	33MF 20% 16V	C262	1-102-516-00	CERAMIC	27PF 5% 50V
C019	1-102-110-00	CERAMIC	220PF 10% 50V	C281	1-124-119-00	ELECT	330MF 20% 16V
C021	1-101-003-00	CERAMIC	0.0047MF 50V	C282	1-101-005-00	CERAMIC	0.022MF 50V
C025	1-102-074-00	CERAMIC	0.001MF 10% 50V	C287	1-124-904-00	ELECT	2.2MF 20% 50V
C031	1-102-110-00	CERAMIC	220PF 10% 50V	C291	1-102-125-00	CERAMIC	0.0047MF 10% 50V
C032	1-102-074-00	CERAMIC	0.001MF 10% 50V	C292	1-123-321-00	ELECT	220MF 20% 16V
C033	1-102-074-00	CERAMIC	0.001MF 10% 50V	C293	1-124-907-00	ELECT	10MF 20% 50V
C035	1-101-003-00	CERAMIC	0.0047MF 50V	C294	1-124-907-00	ELECT	10MF 20% 50V
C040	1-102-074-00	CERAMIC	0.001MF 10% 50V	C295	1-136-165-00	FILM	0.1MF 5% 50V
C052	1-102-114-00	CERAMIC	470PF 10% 50V	C296	1-136-163-00	FILM	0.068MF 5% 50V
C053	1-102-112-00	CERAMIC	330PF 10% 50V	C297	1-102-963-00	CERAMIC	33PF 5% 50V
C054	1-124-927-11	ELECT	4.7MF 20% 50V	C298	1-124-896-00	ELECT	33MF 20% 16V
C055	1-102-508-00	CERAMIC	10PF 0.5PF 50V	C299	1-124-907-00	ELECT	10MF 20% 50V
C056	1-102-508-00	CERAMIC	10PF 0.5PF 50V	C501	1-108-634-81	MYLAR	0.047MF 10% 100V
C057	1-102-523-00	CERAMIC	56PF 5% 50V	C502	1-124-903-00	ELECT	1MF 20% 50V
C060	1-102-121-00	CERAMIC	0.0022MF 10% 50V	C503	1-106-176-00	MYLAR	0.0015MF 10% 50V
C081	1-123-321-00	ELECT	220MF 20% 16V	C504	1-136-173-00	FILM	0.47MF 5% 50V
C082	1-124-896-00	ELECT	33MF 20% 16V	C505	1-108-633-81	MYLAR	0.039MF 10% 100V
C083	1-124-927-11	ELECT	4.7MF 20% 50V	C506	1-124-903-00	ELECT	1MF 20% 50V
C084	1-124-903-00	ELECT	1MF 20% 50V	C507	1-108-837-00	MYLAR	0.01MF 10% 50V
C201	1-102-508-00	CERAMIC	10PF 0.5PF 50V	C508	1-124-903-00	ELECT	1MF 20% 50V
C202	1-102-510-00	CERAMIC	12PF 5% 50V	C509	1-124-445-00	ELECT	100MF 20% 16V
C203	1-102-125-00	CERAMIC	0.0047MF 10% 50V	C510	1-124-902-00	ELECT	0.47MF 20% 50V
C205	1-102-125-00	CERAMIC	0.0047MF 10% 50V	C512	1-124-904-00	ELECT	2.2MF 20% 50V
C206	1-102-125-00	CERAMIC	0.0047MF 10% 50V	C513	1-108-634-81	MYLAR	0.047MF 10% 100V
C207	1-102-852-00	CERAMIC	47PF 5% 50V	C514	1-101-004-00	CERAMIC	0.01MF 20% 16V
C208	1-102-510-00	CERAMIC	12PF 5% 50V	C515	1-124-555-00	ELECT	1000MF 20% 16V
C209	1-102-125-00	CERAMIC	0.0047MF 10% 50V	C516	1-108-841-91	MYLAR	0.022MF 10% 50V
C210	1-102-125-00	CERAMIC	0.0047MF 10% 50V	C517	1-101-888-00	CERAMIC	68PF 5% 50V
C211	1-102-125-00	CERAMIC	0.0047MF 10% 50V	C518	1-108-837-00	MYLAR	0.01MF 10% 50V
C213	1-102-516-00	CERAMIC	27PF 5% 50V	C519	1-123-321-00	ELECT	220MF 20% 16V
C214	1-102-518-00	CERAMIC	33PF 5% 50V	C520	1-124-903-00	ELECT	1MF 20% 50V
C215	1-102-520-00	CERAMIC	39PF 5% 50V	C521	1-124-903-00	ELECT	1MF 20% 50V
C216	1-102-945-00	CERAMIC	8PF 1PF 50V	C522	1-129-794-00	FILM	0.0033MF 2% 100V
C217	1-102-944-00	CERAMIC	7PF 1PF 50V	C523	1-106-180-00	MYLAR	0.0022MF 5% 50V
C219	1-102-518-00	CERAMIC	33PF 5% 50V	C524	1-108-841-91	MYLAR	0.022MF 10% 50V
C220	1-102-518-00	CERAMIC	33PF 5% 50V	C525	1-124-907-00	ELECT	10MF 20% 50V
C227	1-161-051-00	CERAMIC	0.01MF 10% 50V	C526	1-108-614-91	MYLAR	0.001MF 10% 100V
C229	1-161-059-00	CERAMIC	0.047MF 10% 25V	C527	1-102-121-00	CERAMIC	0.0022MF 10% 50V
C230	1-124-907-00	ELECT	10MF 20% 50V	C530	1-124-445-00	ELECT	100MF 20% 16V
C231	1-124-902-00	ELECT	0.47MF 20% 50V	C531	1-124-907-00	ELECT	10MF 20% 50V
C232	1-161-051-00	CERAMIC	0.01MF 10% 50V	C532	1-102-108-00	CERAMIC	150PF 10% 50V
C233	1-102-525-00	CERAMIC	68PF 5% 50V	C533	1-102-820-00	CERAMIC	330PF 5% 50V
C234	1-102-125-00	CERAMIC	0.0047MF 10% 50V	C551	1-108-627-91	MYLAR	0.012MF 10% 100V
C235	1-124-896-00	ELECT	33MF 20% 16V	C552	1-102-244-00	CERAMIC	220PF 10% 500V
C236	1-161-059-00	CERAMIC	0.047MF 10% 25V	C553	1-123-875-91	ELECT	10MF 20% 50V
C237	1-102-125-00	CERAMIC	0.0047MF 10% 50V	C554	1-102-030-00	CERAMIC	330PF 10% 500V
C238	1-123-321-00	ELECT	220MF 20% 16V	C555	1-102-038-00	CERAMIC	0.001MF 500V
C241	1-124-445-00	ELECT	100MF 20% 16V	C556	1-124-801-11	ELECT	4.7MF 20% 160V
C251	1-102-526-00	CERAMIC	75PF 5% 50V	C557	1-108-431-00	MYLAR	0.068MF 10% 200V
C252	1-102-852-00	CERAMIC	47PF 5% 50V	C558	1-124-912-11	ELECT	330MF 20% 50V
C253	1-102-516-00	CERAMIC	27PF 5% 50V	C559	1-129-742-00	FILM	0.015MF 10% 400V
C261	1-123-332-00	ELECT	47MF 20% 16V				

A

Ref.No.	Part No.	Description	Remark	Ref.No.	Part No.	Description	Remark
C560	1-124-913-11	ELECT	470MF	20%	50V		
C581	1-102-125-00	CERAMIC	0.0047MF	10%	50V		
C582	1-102-125-00	CERAMIC	0.0047MF	10%	50V		
C584	1-101-880-00	CERAMIC	47PF	5%	50V		
C585	1-123-332-00	ELECT	47MF	20%	16V		
C801	1-102-114-00	CERAMIC	470PF	10%	50V		
C802	1-124-902-11	ELECT	1MF	20%	50V		
C803	1-124-902-00	ELECT	0.47MF	20%	50V		
C804	1-102-114-00	CERAMIC	470PF	10%	50V		
C805	1-102-030-00	CERAMIC	330PF	10%	500V		
C806	1-108-614-91	MYLAR	0.001MF	10%	100V		
C807	1-106-385-00	MYLAR	0.056MF	10%	200V		
C808	1-123-024-00	ELECT	33MF	20%	160V		
C809	1-124-119-00	ELECT	330MF	20%	16V		
C810	1-136-117-00	FILM	2MF	5%	200V		
C811	1-162-116-51	CERAMIC	680PF	10%	2KV		
C812	1-136-080-11	FILM	0.011MF	3%	2KV		
C813	1-161-754-11	CERAMIC	0.001MF	10%	3KV		
C814	1-108-632-81	MYLAR	0.033MF	10%	100V		
C815	1-124-905-11	ELECT	3.3MF	20%	50V		
C816	1-102-963-00	CERAMIC	33PF	5%	50V		
C817	1-136-334-51	FILM	0.033MF	5%	630V		
C818	1-130-797-11	FILM	0.68MF	10%	250V		
C819	1-108-682-81	MYLAR	0.01MF	10%	200V		
C820	1-136-053-00	FILM	1.2MF	5%	200V		
C821	1-102-112-00	CERAMIC	330PF	10%	50V		
C822	1-162-116-00	CERAMIC	680PF	10%	2KV		
C823	1-124-445-00	ELECT	100MF	20%	16V		
C824	1-102-228-00	CERAMIC	470PF	10%	500V		
C825	1-124-903-00	ELECT	1MF	20%	50V		
C830	1-162-116-00	CERAMIC	680PF	10%	2KV		
C831	1-131-351-00	TANTALUM	4.7MF	10%	35V		
C832	1-124-902-00	ELECT	0.47MF	20%	50V		
C833	1-124-892-11	ELECT	47MF	20%	10V		
C834	1-124-907-00	ELECT	10MF	20%	50V		
C835	1-124-908-11	ELECT	22MF	20%	50V		
C836	1-124-907-00	ELECT	10MF	20%	50V		
C837	1-124-902-00	ELECT	0.47MF	20%	50V		
C851	1-102-038-00	CERAMIC	0.001MF	500V			
C852	1-123-948-00	ELECT	22MF	20%	250V		
C853	1-162-114-00	CERAMIC	0.0047MF	2KV			
C856	1-108-634-81	MYLAR	0.047MF	10%	100V		
C857	1-108-634-81	MYLAR	0.047MF	10%	100V		
C858	1-108-634-81	MYLAR	0.047MF	10%	100V		
C859	1-108-425-00	MYLAR	0.022MF	10%	200V		
C860	1-102-038-00	CERAMIC	0.001MF	500V			
C861	1-124-445-00	ELECT	100MF	20%	16V		
C862	1-124-445-00	ELECT	100MF	20%	16V		
C864	1-124-927-11	ELECT	4.7MF	20%	50V		
C866	1-136-080-00	FILM	0.011MF	3%	2KV		
C877	1-124-907-00	ELECT	10MF	20%	50V		
C891	1-124-445-00	ELECT	100MF	20%	16V		
C892	1-123-321-00	ELECT	220MF	20%	16V		
C893	1-123-321-00	ELECT	220MF	20%	16V		
				FILTER			
CF241	1-527-943-00	FILTER, CERAMIC					
CF242	1-409-332-00	CERAMIC TRAP					
CF243	1-404-469-00	DISCRIMINATOR, CERAMIC 4.5MHZ					
CF251	1-567-099-00	FILTER, CERAMIC					
CF252	1-404-134-00	TRAP, CERAMIC (5.5MHZ)					
CF253	1-404-473-00	DISCRIMINATOR, CERAMIC					
CF261	1-567-100-00	FILTER, CERAMIC					
CF262	1-409-333-00	TRAP, CERAMIC (6.0MHZ)					
CF263	1-404-490-00	DISCRIMINATOR, CERAMIC (6.0MHZ)					
				DIODE			
D003	8-719-911-19	DIODE 1SS119					
D006	8-719-911-19	DIODE 1SS119					
D007	8-719-911-19	DIODE 1SS119					
D008	8-719-911-19	DIODE 1SS119					
D009	8-719-911-19	DIODE 1SS119					
D010	8-719-911-19	DIODE 1SS119					
D011	8-719-102-26	DIODE RD30E-14					
D012	8-719-911-19	DIODE 1SS119					
D013	8-719-911-19	DIODE 1SS119					
D016	8-719-110-02	DIODE RD7.5ES-81					
D020	8-719-911-19	DIODE 1SS119					
D024	8-719-911-19	DIODE 1SS119					
D025	8-719-109-71	DIODE RD3.9ES-81					
D027	8-719-911-19	DIODE 1SS119					
D028	8-719-911-19	DIODE 1SS119					
D029	8-719-911-19	DIODE 1SS119					
D031	8-719-911-19	DIODE 1SS119					
D032	8-719-911-19	DIODE 1SS119					
D033	8-719-911-19	DIODE 1SS119					
D034	8-719-911-19	DIODE 1SS119					
D052	8-719-911-19	DIODE 1SS119					
D053	8-719-000-12	DIODE MC931					
D054	8-719-000-12	DIODE MC931					
D083	8-719-911-19	DIODE 1SS119					
D084	8-719-911-19	DIODE 1SS119					
D085	8-719-911-19	DIODE 1SS119					
D086	8-719-911-19	DIODE 1SS119					
D087	8-719-109-90	DIODE RD5.6ES-83					
D088	8-719-109-86	DIODE RD5.1ES-83					
D089	8-719-911-19	DIODE 1SS119					
D203	8-719-911-19	DIODE 1SS119					
D204	8-719-911-19	DIODE 1SS119					
D205	8-719-911-19	DIODE 1SS119					
D206	8-719-911-19	DIODE 1SS119					
D210	8-719-911-19	DIODE 1SS119					
D212	8-719-911-19	DIODE 1SS119					
D241	8-719-109-81	DIODE RD4.7ES-82					
D251	8-719-109-85	DIODE RD5.1ES-82					
D261	8-719-109-85	DIODE RD5.1ES-82					

The components identified by shading and mark A are critical for safety. Replace only with part number specified.

A

Ref. No.	Part No.	Description	Remark	Ref. No.	Part No.	Description	Remark
Q381	8-719-110-17	DIODE RD105-B2		L254	1-408-607-00	MICRO INDUCTOR 22UH	
Q501	8-719-911-19	DIODE 1S5119		L255	1-408-610-00	MICRO INDUCTOR 12UH	
Q502	8-719-911-19	DIODE 1S5119		L264	1-408-607-00	MICRO INDUCTOR 22UH	
Q503	8-719-911-19	DIODE 1S5119		L265	1-408-410-00	MICRO INDUCTOR 12UH	
Q551	8-719-911-19	DIODE 1S5119		L287	1-408-603-00	MICRO INDUCTOR 10UH	
Q552	8-719-924-06	DIODE ERC24-06S		L291	1-408-421-00	MICRO INDUCTOR 100UH	
Q553	8-719-924-06	DIODE ERC24-06S		L801	1-407-365-00	COIL, CHOKE	
Q554	8-719-924-06	DIODE ERC24-06S		L803	1-407-365-00	COIL, CHOKE	
Q581	8-719-911-19	DIODE 1S5119		L804	1-408-239-00	MICRO INDUCTOR 4.7MMH	
Q801	8-719-305-15	DIODE GH3F		L805	1-459-224-12	WTC	
Q802	8-719-900-26	DIODE ERD29-08J		L806	1-421-390-11	COIL, FERRITE (RMC)	
Q803	8-719-305-15	DIODE GH3F		L807	1-437-090-00	HDT	
Q811	8-719-911-19	DIODE 1S5119		L852	1-459-442-12	COIL (WITH CORE)	
Q831	8-719-190-00	DIODE RD24E-B27		L854	1-408-242-00	MICRO INDUCTOR 10MMH	
Q832	8-719-100-35	DIODE R05,6E-B2		L871	1-459-585-11	COIL (WITH CORE) (DRUM TYPE)	
Q851	8-719-924-06	DIODE ERC24-06S		L891	1-408-300-00	MICRO INDUCTOR 6.8UH	
Q852	8-719-300-65	DIODE ES1F		TRANSISTOR			
Q854	8-719-924-06	DIODE ERC24-06S		Q001	8-729-178-54	TRANSISTOR 25C2785	
Q855	8-719-924-06	DIODE ERC24-06S		Q003	8-729-900-36	TRANSISTOR DTC124ES	
Q856	8-719-924-06	DIODE ERC24-06S		Q004	8-729-900-36	TRANSISTOR DTC124ES	
Q858	8-719-911-55	DIODE U05G		Q005	8-729-900-36	TRANSISTOR DTC124ES	
Q891	8-719-110-36	DIODE RD13ES-B2		Q009	8-729-900-63	TRANSISTOR DTA124ES	
Q892	8-719-911-19	DIODE 1S5119		Q025	8-729-117-54	TRANSISTOR 25A1175	
IC				Q051	8-729-900-36	TRANSISTOR DTC124ES	
IC001	8-759-604-26	IC M50436-518SP		Q052	8-729-900-36	TRANSISTOR DTC124ES	
	*4-367-523-00	CASE (MAIN), SHIELD; IC001		Q053	8-729-178-54	TRANSISTOR 25C2785	
IC002	*4-367-524-00	LID, UPPER, SHIELD CASE; IC001		Q083	8-729-900-63	TRANSISTOR DTA124ES	
IC003	8-759-603-41	IC M8665SP		Q084	8-729-117-54	TRANSISTOR 25A1175	
IC003	8-759-157-40	IC UPC574J		Q200	8-729-105-47	TRANSISTOR 25C2026	
IC004	8-759-340-52	IC HD14052BP		Q211	8-729-178-54	TRANSISTOR 25C2785	
IC081	8-759-105-33	IC UPC780,05J		Q241	8-729-178-54	TRANSISTOR 25C2785	
IC201	8-752-001-51	IC CX20015A		Q242	8-729-178-54	TRANSISTOR 25C2785	
	*4-376-533-01	CASE (MAIN), SHIELD; IC201		Q243	8-729-900-36	TRANSISTOR DTC124ES	
	*4-376-534-01	CASE (UPPER), SHIELD; IC201		Q244	8-729-178-54	TRANSISTOR 25C2785	
	*4-376-535-01	CASE (BOTTOM), SHIELD; IC201		Q245	8-729-900-36	TRANSISTOR DTC124ES	
IC202	8-759-340-52	IC HD14052BP		Q246	8-729-900-36	TRANSISTOR DTC124ES	
IC501	8-759-100-60	IC UPC1377C		Q251	8-729-178-54	TRANSISTOR 25C2785	
IC581	8-759-909-70	IC CX23025		Q252	8-729-178-54	TRANSISTOR 25C2785	
COIL				Q253	8-729-900-36	TRANSISTOR DTC124ES	
L001	1-408-603-00	MICRO INDUCTOR 10UH		Q254	8-729-178-54	TRANSISTOR 25C2785	
L051	1-408-608-41	MICRO INDUCTOR 27UH		Q261	8-729-178-54	TRANSISTOR 25C2785	
L052	1-408-595-00	MICRO INDUCTOR 2.2UH		Q262	8-729-178-54	TRANSISTOR 25C2785	
L201	1-408-412-00	MICRO INDUCTOR 18UH		Q263	8-729-900-36	TRANSISTOR DTC124ES	
L202	1-408-397-00	MICRO INDUCTOR 1UH		Q264	8-729-178-54	TRANSISTOR 25C2785	
L203	1-408-421-00	MICRO INDUCTOR 100UH		Q281	8-729-900-36	TRANSISTOR DTC124ES	
L214	1-404-489-00	COIL		Q282	8-729-378-84	TRANSISTOR 250788	
L215	1-404-489-00	COIL		Q291	8-729-178-54	TRANSISTOR 25C2785	
L216	1-408-401-00	MICRO INDUCTOR 2.2UH		Q292	8-729-117-54	TRANSISTOR 25A1175	
L217	1-408-401-00	MICRO INDUCTOR 2.2UH		Q293	8-729-117-54	TRANSISTOR 25A1175	
L219	1-408-412-00	MICRO INDUCTOR 18UH		Q294	8-729-117-54	TRANSISTOR 25A1175	
L245	1-408-412-00	MICRO INDUCTOR 18UH		Q501	8-729-178-54	TRANSISTOR 25C2785	
				Q502	8-729-117-54	TRANSISTOR 25A1175	

The components identified by shading and mark Δ are critical for safety. Replace only with part number specified.

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Ref.No.	Part No.	Description	Remark	Ref.No.	Part No.	Description	Remark
Q504	8-729-178-54	TRANSISTOR 2SC2785		R030	1-249-429-11	CARBON	10K 5% 1/6W
Q551	8-729-195-82	TRANSISTOR 2SC2958		R032	1-247-725-11	CARBON	10K 5% 1/4W
Q552	8-729-122-02	TRANSISTOR 2SA1220A		R033	1-249-429-11	CARBON	10K 5% 1/6W
Q553	4-303-483-00	HEAD, WASHER, TAPPING SCREW; Q552		R035	1-247-725-11	CARBON	10K 5% 1/4W
	8-729-169-02	TRANSISTOR 2SC2690A		R038	1-247-823-00	CARBON	470 5% 1/6W
	4-303-483-00	HEAD, WASHER, TAPPING SCREW; Q553		R039	1-247-823-00	CARBON	470 5% 1/6W
Q554	8-729-103-43	TRANSISTOR 2SB734		R040	1-247-823-00	CARBON	470 5% 1/6W
Q581	8-729-900-89	TRANSISTOR DTCL44ES		R041	1-247-708-11	CARBON	470 5% 1/4W
Q583	8-729-900-36	TRANSISTOR DTCL24ES		R042	1-247-708-11	CARBON	470 5% 1/4W
				R043	1-247-708-11	CARBON	470 5% 1/4W
Q584	8-729-900-89	TRANSISTOR DTCL44ES		R044	1-247-708-11	CARBON	470 5% 1/4W
Q585	8-729-900-89	TRANSISTOR DTCL44ES		R045	1-247-823-00	CARBON	470 5% 1/6W
Q801	8-729-168-82	TRANSISTOR 2SC2689		R046	1-247-708-11	CARBON	470 5% 1/4W
Q802	8-729-300-90	TRANSISTOR 2SD1497-06		R047	1-247-823-00	CARBON	470 5% 1/6W
	4-363-414-00	SPACER, MICA; Q802		R048	1-247-823-00	CARBON	470 5% 1/6W
	*4-368-683-01	SPRING; Q802					
Q803	8-729-178-54	TRANSISTOR 2SC2785		R049	1-247-883-00	CARBON	150K 5% 1/6W
Q804	8-729-178-54	TRANSISTOR 2SC2785		R051	1-249-437-11	CARBON	47K 5% 1/6W
Q805	8-729-177-43	TRANSISTOR 2SD774		R052	1-249-435-11	CARBON	39K 5% 1/6W
Q806	8-729-103-43	TRANSISTOR 2SB734		R053	1-247-723-11	CARBON	6.8K 5% 1/6W
				R058	1-249-425-11	CARBON	4.7K 5% 1/6W
Q831	8-729-309-08	TRANSISTOR 2SC1890A					
Q832	8-729-178-54	TRANSISTOR 2SC2785		R059	1-249-423-11	CARBON	3.3K 5% 1/6W
Q833	8-729-178-54	TRANSISTOR 2SC2785		R061	1-249-429-11	CARBON	10K 5% 1/6W
Q834	8-729-117-54	TRANSISTOR 2SA1175		R063	1-249-433-11	CARBON	22K 5% 1/6W
Q871	8-719-801-06	TRANSISTOR S6344G		R064	1-247-851-00	CARBON	6.8K 5% 1/6W
				R065	1-249-425-11	CARBON	4.7K 5% 1/6W
Q891	8-729-178-54	TRANSISTOR 2SC2785					
Q892	8-729-201-78	TRANSISTOR 2SD1406		R066	1-247-815-00	CARBON	220 5% 1/6W
				R067	1-247-163-00	CARBON	22K 5% 1/4W
				R068	1-246-511-00	CARBON	39K 5% 1/4W
				R069	1-249-433-11	CARBON	22K 5% 1/6W
				R071	1-247-725-11	CARBON	10K 5% 1/4W
				R078	1-247-721-11	CARBON	4.7K 5% 1/4W
				R083	1-247-853-00	CARBON	8.2K 5% 1/6W
				R084	1-247-897-00	CARBON	560K 5% 1/6W
				R085	1-247-719-11	CARBON	3.3K 5% 1/4W
				R086	1-247-149-00	CARBON	5.6K 5% 1/4W
				R087	1-247-721-11	CARBON	4.7K 5% 1/4W
				R088	1-247-721-11	CARBON	4.7K 5% 1/4W
				R089	1-247-721-11	CARBON	4.7K 5% 1/4W
				R091	1-247-717-11	CARBON	2.2K 5% 1/4W
				R093	1-247-815-00	CARBON	220 5% 1/6W
				R201	1-247-829-00	CARBON	820 5% 1/6W
				R202	1-247-833-00	CARBON	1.2K 5% 1/6W
				R203	1-247-823-00	CARBON	470 5% 1/6W
				R204	1-247-813-00	CARBON	180 5% 1/6W
				R205	1-247-823-00	CARBON	470 5% 1/6W
				R206	1-249-459-11	CARBON	12K 5% 1/4W
				R207	1-247-857-00	CARBON	12K 5% 1/6W
				R208	1-249-417-11	CARBON	1K 5% 1/6W
				R209	1-247-726-11	CARBON	33K 5% 1/4W
				R210	1-247-875-00	CARBON	68K 5% 1/6W
				R211	1-247-717-11	CARBON	2.2K 5% 1/4W
				R212	1-247-839-00	CARBON	2.2K 5% 1/6W
				R214	1-247-803-00	CARBON	68 5% 1/6W

RESISTOR

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Ref.No.	Part No.	Description	Remark	Ref.No.	Part No.	Description	Remark
R215	1-249-441-11	CARBON	100K 5% 1/6W	R503	1-247-823-00	CARBON	470 5% 1/6W
R216	1-249-441-11	CARBON	100K 5% 1/6W	R504	1-247-819-00	CARBON	330 5% 1/6W
R217	1-247-823-00	CARBON	470 5% 1/6W	R505	1-247-705-11	CARBON	270 5% 1/4W
R218	1-247-785-00	CARBON	12 5% 1/6W	R506	1-249-417-11	CARBON	1K 5% 1/6W
R231	1-247-815-00	CARBON	220 5% 1/6W	R507	1-247-713-11	CARBON	1K 5% 1/6W
R232	1-247-883-00	CARBON	150K 5% 1/6W	R508	1-249-422-11	CARBON	2.7K 5% 1/6W
R233	1-249-425-11	CARBON	4.7K 5% 1/6W	R509	1-247-845-00	CARBON	3.9K 5% 1/6W
R234	1-249-429-11	CARBON	10K 5% 1/6W	R510	1-247-873-00	CARBON	56K 5% 1/6W
R240	1-247-951-00	CARBON	6.8K 5% 1/6W	R511	1-215-461-00	METAL	47K 1% 1/6W
R241	1-249-417-11	CARBON	1K 5% 1/6W	R512	1-249-417-11	CARBON	1K 5% 1/6W
R242	1-249-417-11	CARBON	1K 5% 1/6W	R513	1-215-475-00	METAL	180K 1% 1/6W
R243	1-249-441-11	CARBON	100K 5% 1/6W	R514	1-215-455-00	METAL	27K 1% 1/6W
R244	1-249-417-11	CARBON	1K 5% 1/6W	R515	1-249-429-11	CARBON	10K 5% 1/6W
R245	1-247-915-00	CARBON	220 5% 1/6W	R516	1-215-463-00	METAL	56K 1% 1/6W
R246	1-249-417-11	CARBON	1K 5% 1/6W	R517	1-249-429-11	CARBON	10K 5% 1/6W
R247	1-249-414-11	CARBON	560 5% 1/6W	R518	1-247-849-00	CARBON	5.6K 5% 1/6W
R248	1-249-414-11	CARBON	560 5% 1/6W	R519	1-249-415-11	CARBON	680 5% 1/6W
R249	1-247-819-00	CARBON	330 5% 1/6W	R520	1-249-414-11	CARBON	560 5% 1/6W
R250	1-247-851-00	CARBON	6.8K 5% 1/6W	R521	1-247-726-11	CARBON	33K 5% 1/4W
R251	1-249-417-11	CARBON	1K 5% 1/6W	R522	1-247-819-00	CARBON	330 5% 1/6W
R252	1-247-826-00	CARBON	620 5% 1/6W	R523	1-247-819-00	CARBON	330 5% 1/6W
R253	1-249-441-11	CARBON	100K 5% 1/6W	R524	1-214-768-00	METAL	43K 1% 1/4W
R254	1-249-423-11	CARBON	3.3K 5% 1/6W	R525	1-249-427-11	CARBON	6.8K 5% 1/6W F
R255	1-247-706-11	CARBON	330 5% 1/4W	R526	1-249-393-11	CARBON	10 5% 1/6W F
R256	1-249-405-11	CARBON	100 5% 1/6W	R527	1-216-434-11	METAL OXIDE	1.8K 5% 1W F
R257	1-247-833-00	CARBON	1.2K 5% 1/6W	R528	1-216-464-11	METAL OXIDE	18K 5% 2W F
R258	1-247-819-00	CARBON	330 5% 1/6W	R529	1-247-719-11	CARBON	3.3K 5% 1/4W
R259	1-247-819-00	CARBON	330 5% 1/6W	R530	1-247-177-00	CARBON	82K 5% 1/4W
R260	1-247-851-00	CARBON	6.8K 5% 1/6W	R531	1-249-440-11	CARBON	82K 5% 1/6W
R261	1-249-417-11	CARBON	1K 5% 1/6W	R532	1-249-459-11	CARBON	12K 5% 1/4W
R262	1-247-823-00	CARBON	470 5% 1/6W	R533	1-249-434-11	CARBON	27K 5% 1/6W
R263	1-249-469-11	CARBON	100K 5% 1/4W	R534	1-249-417-11	CARBON	1K 5% 1/6W
R264	1-249-432-11	CARBON	18K 5% 1/6W	R535	1-249-417-11	CARBON	1K 5% 1/6W
R265	1-247-819-00	CARBON	330 5% 1/6W	R536	1-247-849-00	CARBON	5.6K 5% 1/6W
R266	1-247-833-00	CARBON	1.2K 5% 1/6W	R537	1-249-425-11	CARBON	4.7K 5% 1/6W
R267	1-247-833-00	CARBON	1.2K 5% 1/6W	R538	1-249-417-11	CARBON	1K 5% 1/6W
R268	1-249-417-11	CARBON	1K 5% 1/6W	R539	1-249-429-11	CARBON	10K 5% 1/6W
R270	1-247-851-00	CARBON	6.8K 5% 1/6W	R540	1-247-706-11	CARBON	330 5% 1/4W
R281	1-249-435-11	CARBON	33K 5% 1/6W	R541	1-247-883-00	CARBON	150K 5% 1/6W
R282	1-249-429-11	CARBON	10K 5% 1/6W	R542	1-249-441-11	CARBON	100K 5% 1/6W
R283	1-247-725-11	CARBON	10K 5% 1/4W	R543	1-249-752-11	CARBON	3.9M 5% 1/4W
R284	1-249-393-11	CARBON	10 5% 1/6W F	R544	1-215-411-00	METAL	390 1% 1/6W
R285	1-249-417-11	CARBON	1K 5% 1/6W	R545	1-215-411-00	METAL	390 1% 1/6W
R291	1-247-726-11	CARBON	33K 5% 1/4W	R549	1-249-469-11	CARBON	100K 5% 1/4W
R292	1-247-891-00	CARBON	330K 5% 1/6W	R551	1-247-833-00	CARBON	1.2K 5% 1/6W
R293	1-249-429-11	CARBON	10K 5% 1/6W	R552	1-247-688-11	CARBON	10 5% 1/4W F
R294	1-247-823-00	CARBON	470 5% 1/6W	R553	1-217-399-00	FUSIBLE	100 5% 1/4W F
R295	1-249-433-11	CARBON	22K 5% 1/6W	R554	1-249-399-11	CARBON	33 5% 1/6W F
R296	1-249-433-11	CARBON	22K 5% 1/6W	R555	1-216-433-00	METAL OXIDE	1.2K 5% 1W F
R297	1-249-433-11	CARBON	22K 5% 1/6W	R556	1-247-700-11	CARBON	100 5% 1/4W F
R500	1-215-983-11	METAL OXIDE	33 5% 2W F	R557	1-216-350-11	METAL OXIDE	1.2 5% 1W F
R501	1-249-405-11	CARBON	100 5% 1/6W	R558	1-216-350-11	METAL OXIDE	1.2 5% 1W F
R502	1-249-405-11	CARBON	100 5% 1/6W	R559	1-249-432-11	CARBON	18K 5% 1/6W

A C

Ref. No.	Part No.	Description	Remark	Ref. No.	Part No.	Description	Remark
R561	1-216-432-00	METAL OXIDE	820 5% 1W F	R862	1-217-383-00	FUSIBLE	4.7 5% 1/4W F
R562	1-216-354-11	METAL OXIDE	2.7 5% 1W F	R863	1-247-149-00	CARBON	5.6K 5% 1/4W
R563	1-247-769-00	CARBON	2.7 5% 1/6W	R866	1-207-678-00	WIREWOUND	10 10% 5W F
R564	1-247-845-00	CARBON	3.9K 5% 1/6W	R887	1-207-678-00	WIREWOUND	10 10% 5W F
R565	1-249-425-11	CARBON	4.7K 5% 1/6W	R889	1-247-177-00	CARBON	82K 5% 1/4W
R566	1-215-867-00	METAL OXIDE	470 5% 1W F	R892	1-247-717-11	CARBON	2.2K 5% 1/4W
R567	1-216-431-11	METAL OXIDE	560 5% 1W F	R893	1-216-428-00	METAL OXIDE	180 5% 1W F
R583	1-249-465-11	CARBON	47K 5% 1/4W	VARIABLE RESISTOR			
R584	1-246-531-00	CARBON	270K 5% 1/4W	RV201	1-228-723-00	RES, ADJ, CERAMIC CARBON	4.7K
R585	1-247-903-00	CARBON	1M 5% 1/6W	RV501	1-224-251-XX	RES, ADJ, METAL GLAZE	4.7K
R587	1-214-784-00	METAL	200K 1% 1/4W	RV502	1-230-633-51	RES, ADJ, CARBON	47K
R588	1-249-423-11	CARBON	3.3K 5% 1/6W	RV503	1-230-624-51	RES, ADJ, CARBON	220
R590	1-249-437-11	CARBON	47K 5% 1/6W	RV551	1-230-633-11	RES, ADJ, CARBON	10K
R801	1-247-109-00	CARBON	120 5% 1/4W	RV801	1-228-720-00	RES, ADJ, CERAMIC CARBON	1K
R802	1-249-465-11	CARBON	47K 5% 1/4W	FILTER			
R803	1-247-639-00	CARBON	2.2K 5% 1/6W	SF201	1-404-701-11	SAWF	
R804	1-249-425-11	CARBON	4.7K 5% 1/6W	SPARK GAP			
R805	1-249-405-11	CARBON	1.8K 5% 1/6W	SG001	1-519-063-XX	DISCHARGING GAP	
R806	1-216-431-11	METAL OXIDE	560 5% 1W F	TRANSFORMER			
R808	1-249-405-11	CARBON	100 5% 1/6W	T202	1-404-465-00	COIL, VIF (MOD TYPE)	
R809	1-215-871-11	METAL OXIDE	2.2K 5% 1W F	T203	1-404-489-00	COIL	
R810	1-215-880-00	METAL OXIDE	10 5% 2W F	T801	1-437-090-00	HDT	
R811	1-215-862-11	METAL OXIDE	68 5% 1W F	THERMISTOR			
R812	1-247-861-00	CARBON	6.8K 5% 1/6W	TH551	1-800-945-00	THERMISTOR 5-10K	
R813	1-247-713-11	CARBON	1K 5% 1/4W	TUNER			
R814	1-249-429-11	CARBON	10K 5% 1/6W	TU251A	1-463-661-11	TUNER, ET (OF R895)	
R815	1-247-829-00	CARBON	820 5% 1/6W	CRYSTAL			
R816	1-247-710-11	CARBON	560 5% 1/4W	X001	1-567-686-11	OSCILLATOR, CERAMIC	
R817	1-249-401-11	CARBON	100 5% 1/6W	*****			
R818	1-215-460-00	METAL	43K 1% 1/6W	*A-1330-737-A C BOARD, COMPLETE			
R819	1-247-803-00	CARBON	68 5% 1/6W	*****			
R821	1-207-612-00	WIREWOUND	0.1 10% 2W F	CONNECTOR			
R831	1-215-445-00	METAL	10K 1% 1/6W	C1	*1-506-371-00	2P PLUG (1)	
R832	1-215-445-00	METAL	10K 1% 1/6W	C2	*1-508-768-00	6P PLUG	
R833A	1-215-445-00	METAL	10K 1% 1/6W	C3	*1-566-059-11	PIN, CONNECTOR 7P	
R835	1-249-469-11	CARBON	100K 5% 1/4W	C4	*1-566-054-11	PIN, CONNECTOR 2P	
R836	1-215-443-00	METAL	8.2K 1% 1/6W	C5	*1-566-054-11	PIN, CONNECTOR 2P	
R837	1-215-466-00	METAL	75K 1% 1/6W	CAPACITOR			
R838	1-214-910-81	METAL	75K 1% 1/2W	C701	1-162-115-00	CERAMIC	330PF 10% 2KV
R839	1-215-876-00	METAL OXIDE	15K 5% 1W F	C702	1-129-779-00	FILM	0.022MF 20% 1KV
R840	1-249-460-11	CARBON	15K 5% 1/4W	C703	1-123-619-00	ELECT	4.7MF 20% 50V
R841	1-247-887-00	CARBON	220K 5% 1/6W				
R842	1-249-429-11	CARBON	10K 5% 1/6W				
R843	1-247-725-11	CARBON	10K 5% 1/4W				
R851	1-249-382-11	CARBON	1.2 5% 1/6W F				
R852	1-215-969-11	METAL OXIDE	1K 5% 1W F				
R853	1-249-377-11	CARBON	0.47 5% 1/6W F				
R854	1-249-377-11	CARBON	0.47 5% 1/6W F				
R855	1-216-445-11	METAL OXIDE	12 5% 2W F				
R857	1-202-822-00	SOLDER	2.2K 10%				
R858	1-247-149-00	CARBON	5.6K 5% 1/4W				
R859	1-215-461-00	METAL	47K 1% 1/6W				
R860	1-249-382-11	CARBON	1.2 5% 1/6W F				
R861	1-217-383-00	FUSIBLE	4.7 5% 1/4W F				

The components identified by shading and mark A are critical for safety. Replace only with part number specified.

- The components identified by A in this manual have been carefully factory-selected for each set in order to satisfy regulations regarding X-ray radiation. Should replacement be required, replace only with the value originally used.

C

Ref. No.	Part No.	Description	Remark	Ref. No.	Part No.	Description	Remark
C704	1-123-946-00	ELECT	4.7MF	20%	250V		
C705	1-129-714-00	FILM	0.01MF	10%	630V		
C708	1-102-111-00	CERAMIC	270PF	10%	50V		
C709	1-102-109-00	CERAMIC	180PF	10%	50V		
C710	1-102-110-00	CERAMIC	220PF	10%	50V		
C711	1-102-125-00	CERAMIC	0.0047MF	10%	50V		
C712	1-123-356-00	ELECT	10MF	20%	25V		
C713	1-102-074-00	CERAMIC	0.001MF	10%	50V		
C714	1-102-074-00	CERAMIC	0.001MF	10%	50V		
C715	1-102-074-00	CERAMIC	0.001MF	10%	50V		
C751	1-102-971-00	CERAMIC	82PF	5%	50V		
C752	1-108-617-91	MYLAR	0.0018MF	10%	100V		
C753	1-108-634-81	MYLAR	0.04MF	10%	100V		
C754	1-123-356-00	ELECT	10MF	20%	25V		
C755	1-102-980-00	CERAMIC	270PF	5%	50V		
C756	1-106-196-00	MYLAR	0.01MF	10%	100V		
C758	1-106-196-00	MYLAR	0.01MF	10%	100V		
C760	1-106-196-00	MYLAR	0.01MF	10%	100V		
C761	1-106-220-00	MYLAR	0.1MF	10%	100V		
C762	1-106-196-00	MYLAR	0.01MF	10%	100V		
C763	1-124-907-00	ELECT	22MF	20%	50V		
C764	1-123-321-00	ELECT	220NF	20%	16V		
C765	1-124-122-11	ELECT	100MF	20%	50V		
C766	1-124-903-00	ELECT	1MF	20%	50V		
DIODE							
D701	8-719-911-19	DIODE 1SS119					
D702	8-719-911-19	DIODE 1SS119					
D703	8-719-911-19	DIODE 1SS119					
D704	8-719-911-19	DIODE 1SS119					
D705	8-719-911-19	DIODE 1SS119					
D706	8-719-911-19	DIODE 1SS119					
JACK							
J701 A 1-326-844-41 SOCKET, CRT							
COIL							
L701	1-407-701-00	MICRO INDUCTOR 47UH					
L702	1-408-454-21	MICRO INDUCTOR 100UH					
L703	1-408-454-21	MICRO INDUCTOR 100UH					
L704	1-408-454-21	MICRO INDUCTOR 100UH					
L751	1-407-697-00	MICRO INDUCTOR 22UH					
TRANSISTOR							
Q701	8-729-178-54	TRANSISTOR 2SC2785					
Q702	8-729-326-11	TRANSISTOR 2SC2611					
Q703	8-729-178-54	TRANSISTOR 2SC2785					
Q704	8-729-326-11	TRANSISTOR 2SC2611					
Q705	8-729-178-54	TRANSISTOR 2SC2785					
Q706	8-729-326-11	TRANSISTOR 2SC2611					
Q751	8-729-178-54	TRANSISTOR 2SC2785					
Q752	8-729-178-54	TRANSISTOR 2SC2785					
Q753	8-729-178-54	TRANSISTOR 2SC2785					
Q754	8-729-103-43	TRANSISTOR 2SB734					
Q755	8-729-177-43	TRANSISTOR 2SD774					
Q756	8-729-177-43	TRANSISTOR 2SD774					
Q757	8-729-178-54	TRANSISTOR 2SC2785					
RESISTOR							
R701	1-202-846-00	SOLID	470K	10%	1/2W		
R702	1-202-720-00	SOLID	1.2M	10%	1/2W		
R703	1-202-844-00	SOLID	330K	10%	1/2W		
R704	1-202-836-00	SOLID	56K	10%	1/2W		
R705	1-202-846-00	SOLID	470K	10%	1/2W		
R706	1-216-345-11	METAL OXIDE	0.47	5%	1W	F	
R707	1-202-842-81	SOLID	220K	10%	1/2W		
R708	1-202-824-00	SOLID	3.3K	10%	1/2W		
R709	1-202-824-00	SOLID	3.3K	10%	1/2W		
R711	1-202-549-00	SOLID	100	10%	1/2W		
R712	1-202-543-92	SOLID	56	10%	1/2W		
R713	1-202-824-00	SOLID	3.3K	10%	1/2W		
R714	1-247-706-11	CARBON	100	5%	1/4W	F	
R715	1-247-706-11	CARBON	330	5%	1/4W		
R716	1-215-416-00	METAL	620	1%	1/8W		
R717	1-249-425-11	CARBON	4.7K	5%	1/6W		
R718	1-247-791-00	CARBON	22	5%	1/6W		
R719	1-249-422-11	CARBON	2.7K	5%	1/6W		
R720	1-249-414-11	CARBON	560	5%	1/6W		
R722	1-215-924-00	METAL OXIDE	15K	5%	3W	F	
R723	1-247-819-00	CARBON	330	5%	1/6W		
R724	1-249-414-11	CARBON	560	5%	1/6W		
R725	1-249-425-11	CARBON	4.7K	5%	1/6W		
R726	1-247-791-00	CARBON	22	5%	1/6W		
R727	1-249-422-11	CARBON	2.7K	5%	1/6W		
R728	1-249-414-11	CARBON	560	5%	1/6W		
R730	1-215-924-00	METAL OXIDE	15K	5%	3W	F	
R731	1-247-706-11	CARBON	330	5%	1/4W		
R732	1-247-821-00	CARBON	390	5%	1/6W		
R733	1-249-425-11	CARBON	4.7K	5%	1/6W		
R734	1-247-857-00	CARBON	12K	5%	1/6W		
R735	1-247-791-00	CARBON	22	5%	1/6W		
R737	1-215-924-00	METAL OXIDE	15K	5%	3W	F	
R751	1-247-815-00	CARBON	220	5%	1/6W		
R752	1-247-815-00	CARBON	220	5%	1/6W		
R753	1-247-833-00	CARBON	1.2K	5%	1/6W		
R754	1-247-829-00	CARBON	820	5%	1/6W		
R755	1-215-671-11	METAL OXIDE	2.2K	5%	1W	F	
R756	1-249-414-11	CARBON	560	5%	1/6W		
R757	1-247-849-00	CARBON	5.6K	5%	1/6W		
R758	1-249-435-11	CARBON	33K	5%	1/6W		
R759	1-249-393-11	CARBON	10	5%	1/6W	F	
R760	1-247-819-00	CARBON	330	5%	1/6W		
R761	1-247-815-00	CARBON	220	5%	1/6W		
R762	1-247-815-00	CARBON	220	5%	1/6W		
R764	1-249-417-11	CARBON	1K	5%	1/6W		
R765	1-249-309-11	CARBON	4.7	5%	1/6W	F	

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C DF D

Ref.No.	Part No.	Description	Remark	Ref.No.	Part No.	Description	Remark
R766	1-249-435-11	CARBON 33K 5% 1/6W		C1512	1-106-196-00	MYLAR 0.01MF	10X 100V
R767	1-249-429-11	CARBON 10K 5% 1/6W		C1513	1-123-332-00	ELECT 47MF	20X 16V
R768	1-249-435-11	CARBON 33K 5% 1/6W		C1514	1-124-908-11	ELECT 22MF	20X 50V
R769	1-249-417-11	CARBON 1K 5% 1/6W		C1515	1-124-908-11	ELECT 22MF	20X 50V
R771	1-249-437-11	CARBON 47K 5% 1/6W		C1516	1-124-122-11	ELECT 100MF	20X 50V
R772	1-249-397-11	CARBON 22 5% 1/6W F		C1517	1-124-905-11	ELECT 3.3MF	20X 50V
R773	1-247-801-00	CARBON 56 5% 1/6W		C1518	1-106-192-00	MYLAR 0.0068MF	10X 100V
R776	1-249-389-11	CARBON 4.7 5% 1/6W F		C1519	1-108-632-81	MYLAR 0.033MF	10X 100V
VARIABLE RESISTOR				C1520	1-124-445-00	ELECT 100MF	20X 16V
RV701	1-226-157-00	RES, ADJ, METAL GLAZE 1M		C1521	1-108-637-00	MYLAR 0.082MF	10X 100V
RV702	1-230-104-00	RES, ADJ, CARBON 4.7K		C1522	1-108-630-81	MYLAR 0.022MF	10X 100V
RV703	1-230-104-00	RES, ADJ, CARBON 4.7K		C1523	1-124-907-00	ELECT 10MF	20X 50V
RV704	1-230-104-00	RES, ADJ, CARBON 4.7K		C1524	1-106-190-00	MYLAR 0.0056MF	10X 100V
RV705	1-230-104-00	RES, ADJ, CARBON 4.7K		C1525	1-125-701-00	FILM 0.01MF	5X 100V
RV706	1-230-104-00	RES, ADJ, CARBON 4.7K		C1526	1-102-125-00	CERAMIC 0.0047MF	10X 50V
RV707	1-230-104-00	RES, ADJ, CARBON 4.7K		C1527	1-106-196-00	MYLAR 0.01MF	10X 100V
*****				DIODE			
*1-620-095-11 DF BOARD				D1501	8-719-911-19	DIODE 1SS119	
*****				D1502	8-719-911-19	DIODE 1SS119	
CAPACITOR				IC			
C884	1-108-634-81	MYLAR 0.047MF	10X 100V	IC1501	8-759-905-39	IC TDA1082	
COIL				COIL			
L881	1-459-074-11	COIL DUST CORE 6.8MMH(HCC)		L1501	1-408-245-00	MICRO INDUCTOR 22MMH	
RESISTOR				L1502	1-407-509-00	MICRO INDUCTOR 27MMH	
R886	1-202-922-51	SOLID 2.2K 1/2W		L1503	1-408-242-00	MICRO INDUCTOR 10MMH	
L881	1-413-059-11	TRANSFORMER, FERRITE (OPT)		L1504	1-408-247-00	MICRO INDUCTOR 33MMH	
*****				TRANSISTOR			
*A-1340-864-A D BOARD, COMPLETE				Q1501	8-729-178-54	TRANSISTOR 2SC2785	
*****				Q1502	8-729-178-54	TRANSISTOR 2SC2785	
*1-562-370-21 CONNECTOR, BOARD TO BOARD 16P				Q1503	8-729-103-43	TRANSISTOR 2SB734	
CAPACITOR				Q1504	8-729-195-82	TRANSISTOR 2SC2958	
C1501	1-108-630-91	MYLAR 0.022MF	10X 100V	RESISTOR			
C1503	1-106-196-00	MYLAR 0.01MF	10X 100V	R1501	1-247-799-00	CARBON 82 5% 1/6W	
C1504	1-124-903-00	ELECT 1MF	20X 50V	R1502	1-247-145-00	CARBON 3.9K 5% 1/4W	
C1505	1-106-190-00	MYLAR 0.0056MF	10X 100V	R1503	1-249-415-11	CARBON 680 5% 1/6W	
C1506	1-124-905-11	ELECT 3.3MF	20X 50V	R1504	1-249-432-11	CARBON 18K 5% 1/6W	
C1507	1-124-908-11	ELECT 22MF	20X 50V	R1505	1-249-423-11	CARBON 3.3K 5% 1/6W	
C1508	1-124-902-00	ELECT 0.47MF	20X 50V	R1506	1-249-432-11	CARBON 18K 5% 1/6W	
C1509	1-124-122-11	ELECT 100MF	20X 50V	R1508	1-249-432-11	CARBON 18K 5% 1/6W	
C1510	1-124-903-00	ELECT 1MF	20X 50V	R1509	1-246-453-00	CARBON 150 5% 1/4W	
C1511	1-124-903-00	ELECT 1MF	20X 50V	R1510	1-249-417-11	CARBON 1K 5% 1/6W	
				R1511	1-246-535-00	CARBON 390K 5% 1/4W	
				R1512	1-247-893-00	CARBON 390K 5% 1/6W	
				R1513	1-247-829-00	CARBON 820 5% 1/6W	
				R1514	1-247-815-00	CARBON 220 5% 1/6W	
				R1515	1-246-535-00	CARBON 390K 5% 1/4W	
				R1516	1-249-429-11	CARBON 10K 5% 1/6W	

The components identified by shading and mark Δ are critical for safety. Replace only with part number specified.

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Ref.No.	Part No.	Description		Remark	Ref.No.	Part No.	Description		Remark	
R1517	1-247-719-11	CARBON	3.3K	5%	1/4W					
R1518	1-249-465-11	CARBON	47K	5%	1/4W					
R1519	1-249-419-11	CARBON	1.5K	5%	1/6W					
R1520	1-247-839-00	CARBON	2.2K	5%	1/6W					
R1521	1-249-435-11	CARBON	33K	5%	1/6W					
							SWITCH			
R1522	1-249-435-11	CARBON	33K	5%	1/6W	S001	1-552-765-00	SWITCH, KEYBOARD		
R1523	1-247-853-00	CARBON	8.2K	5%	1/6W	S002	1-552-765-00	SWITCH, KEYBOARD		
R1524	1-247-811-00	CARBON	150	5%	1/6W	S003	1-552-765-00	SWITCH, KEYBOARD		
R1525	1-249-429-11	CARBON	10K	5%	1/6W	S004	1-552-765-00	SWITCH, KEYBOARD		
R1526	1-247-725-11	CARBON	10K	5%	1/4W	S005	1-552-765-00	SWITCH, KEYBOARD		
R1527	1-247-787-00	CARBON	15	5%	1/6W	S006	1-554-804-11	SWITCH, PUSH (1 KEY)		
R1528	1-249-414-11	CARBON	560	5%	1/6W	S007	1-554-804-11	SWITCH, PUSH (1 KEY)		
R1529	1-249-434-11	CARBON	27K	5%	1/6W	S008	1-554-804-11	SWITCH, PUSH (1 KEY)		
R1530	1-216-451-11	METAL OXIDE	120	5%	2W	F	S009	1-554-804-11	SWITCH, PUSH (1 KEY)	
R1531	1-215-865-11	METAL OXIDE	220	5%	1W	F	S010	1-554-804-11	SWITCH, PUSH (1 KEY)	
R1532	1-247-809-00	CARBON	120	5%	1/6W					
R1533	1-247-242-00	CARBON	1.2K	5%	1/2W					
R1534	1-247-803-00	CARBON	68	5%	1/6W					
R1535	1-216-423-11	METAL OXIDE	27	5%	1W	F				
R1536	1-247-893-00	CARBON	390K	5%	1/5W					
		VARIABLE RESISTOR								
RV1501	1-230-625-11	RES, ADJ, CARBON	330							
RV1502	1-230-634-51	RES, ADJ, CARBON	100K							
RV1503	1-230-634-51	RES, ADJ, CARBON	100K							
RV1504	1-225-771-00	RES, ADJ, METAL GLAZE	1K							
RV1505	1-230-628-11	RES, ADJ, CARBON	2.2K							
							DIODE			
RV1506	1-230-634-51	RES, ADJ, CARBON	100K			D01	8-719-921-55	DIODE SLP1558		
RV1507	1-230-630-11	RES, ADJ, CARBON	10K			D02	8-719-921-55	DIODE SLP1558		
RV1508	1-230-627-11	RES, ADJ, CARBON	1K			D03	8-719-928-49	DIODE SLP4558-01		
RV1509	1-230-271-00	RES, ADJ, CARBON	4.7K			D04	8-719-928-49	DIODE SLP4558-01		
RV1510	1-230-628-11	RES, ADJ, CARBON	2.2K			D05	8-719-955-32	DIODE P45533KA		
RV1511	1-230-625-11	RES, ADJ, CARBON	330			D06	8-719-928-49	DIODE SLP4558-01		
		THERMISTOR								
TH1501	1-806-110-00	THERMISTOR								
TH1502	1-800-625-00	THERMISTOR								
*1-619-601-11	H1 BOARD									

*1-566-057-11	PIN, CONNECTOR	5P								
*1-566-057-11	PIN, CONNECTOR	5P								
*1-566-062-11	PIN, CONNECTOR	10P								
*4-380-621-01	HOLDER (B), LED									
		DIODE								
D007	8-719-812-41	DIODE TL124								
		VARIABLE RESISTOR								
RV001	1-237-386-11	RES, VAR, CARBON	10K/10K/10K							
RV951	1-237-387-11	RES, VAR, CARBON	10K/10K/10K							

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Ref.No.	Part No.	Description	Remark	Ref.No.	Part No.	Description	Remark
C961	1-123-321-00	ELECT	220MF	20K	15V		
C962	1-124-903-00	ELECT	1MF	20K	50V		
C963	1-124-903-00	ELECT	1MF	20K	50V		
C964	1-124-907-00	ELECT	10MF	20K	50V		
C965	1-124-903-00	ELECT	1MF	20K	50V		
C966	1-108-843-91	MYLAR	0.033MF	10K	50V		
C967	1-124-904-00	ELECT	2.2MF	20K	50V		
C968	1-124-903-00	ELECT	1MF	20K	50V		
C969	1-124-903-00	ELECT	1MF	20K	50V		
C970	1-123-332-00	ELECT	47MF	20K	15V		
C971	1-123-332-00	ELECT	47MF	20K	15V		
C972	1-124-907-00	ELECT	10MF	20K	50V		
C973	1-136-166-00	FILM	0.12MF	5K	50V		
C974	1-136-166-00	FILM	0.12MF	5K	50V		
C975	1-124-901-00	ELECT	1000MF	20K	35V		
C976	1-124-901-00	ELECT	1000MF	20K	35V		
C977	1-124-618-11	ELECT	2200MF	20K	35V		
C978	1-124-121-00	ELECT	100MF	20K	35V		
C979	1-123-321-00	ELECT	220MF	20K	15V		
<u>DIODE</u>				R960	1-249-429-11	CARBON	10K 5% 1/6W
D951	8-719-109-92	DIODE RD6.2ES-B1		R961	1-247-725-11	CARBON	10K 5% 1/4W
D952	8-719-110-33	DIODE RD12ES-B3		R962	1-249-429-11	CARBON	10K 5% 1/6W
D953	8-719-911-19	DIODE 1SS119		R964	1-247-721-11	CARBON	4.7K 5% 1/4W
D954	8-719-000-12	DIODE MC931		R965	1-249-435-11	CARBON	33K 5% 1/6W
D955	8-719-000-12	DIODE MC931		R966	1-216-455-11	METAL OXIDE	560 5% 2W F
D956	8-719-911-19	DIODE 1SS119		R967	1-247-891-00	CARBON	330K 5% 1/6W
D957	8-719-911-19	DIODE 1SS119		R968	1-247-895-00	CARBON	470K 5% 1/6W
D958	8-719-911-19	DIODE 1SS119		R969	1-249-419-11	CARBON	1.5K 5% 1/6W
<u>IC</u>				R970	1-247-135-00	CARBON	1.5K 5% 1/4W
IC951	8-759-276-30	IC TA7630P		R971	1-247-903-00	CARBON	1M 5% 1/6W
IC952	8-759-205-84	IC TA7273P		R972	1-249-429-11	CARBON	10K 5% 1/6W
<u>COIL</u>				R973	1-247-925-11	CARBON	10K 5% 1/4W
L951	1-408-429-00	MICRO INDUCTOR 470UH		R974	1-249-437-11	CARBON	47K 5% 1/6W
<u>TRANSISTOR</u>				R975	1-247-163-00	CARBON	22K 5% 1/4W
Q951	8-729-178-54	TRANSISTOR 2SC2785		R976	1-249-428-11	CARBON	10K 5% 1/6W
Q952	8-729-178-54	TRANSISTOR 2SA1175		R977	1-246-409-00	CARBON	2.2 5% 1/4W
Q953	8-729-117-54	TRANSISTOR 2SA1175		R978	1-249-405-00	CARBON	2.2 5% 1/4W
Q954	8-729-178-54	TRANSISTOR 2SC2785		R979	1-247-713-11	CARBON	1K 5% 1/4W
<u>RESISTOR</u>				R980	1-247-713-11	CARBON	1K 5% 1/4W
R951	1-249-417-11	CARBON	1K 5% 1/6W	R981	1-249-433-11	CARBON	22K 5% 1/6W
R952	1-247-713-11	CARBON	1K 5% 1/4W	R982	1-249-417-11	CARBON	1K 5% 1/6W
R953	1-249-441-11	CARBON	100K 5% 1/6W	R983	1-249-429-11	CARBON	10K 5% 1/6W
R954	1-249-441-11	CARBON	100K 5% 1/6W	R984	1-249-405-11	CARBON	100 5% 1/6W F
R955	1-249-419-11	CARBON	1.5K 5% 1/6W	R985	1-249-417-11	CARBON	1K 5% 1/6W
R956	1-249-419-11	CARBON	1.5K 5% 1/6W	R986	1-247-713-11	CARBON	1K 5% 1/4W
R957	1-247-833-00	CARBON	1.2K 5% 1/6W	R987	1-247-713-11	CARBON	1K 5% 1/4W
R958	1-249-429-11	CARBON	10K 5% 1/6W	R988	1-249-425-11	CARBON	4.7K 5% 1/6W
R959	1-249-429-11	CARBON	10K 5% 1/6W	<u>VARIABLE RESISTOR</u>			
				RV952	1-228-996-00	RES, ADJ, CARBON 47K	
				<u>CONNECTOR</u>			
				Y1	*1-566-056-11	PIN, CONNECTOR 4P	
				Y2	*1-566-054-11	PIN, CONNECTOR 2P	
				Y3	*1-566-055-11	PIN, CONNECTOR 3P	
				Y4	*1-566-057-11	PIN, CONNECTOR 5P	
				Y5	*1-566-054-11	PIN, CONNECTOR 2P	

				*1-619-600-11 K2 BOARD			

				*1-566-044-11 PIN, CONNECTOR 5P			
				<u>CAPACITOR</u>			
				C106	1-102-114-00	CERAMIC 470PF	10K 50V
				C111	1-102-114-00	CERAMIC 470PF	10K 50V
				<u>JACK</u>			
				J102	1-563-547-11	JACK BLOCK, PIN (BNC) 3P	

K2

K1

Ref.No.	Part No.	Description	Remark	Ref.No.	Part No.	Description	Remark		
<u>RESISTOR</u>				C1201	1-124-233-00	ELECT	10MF	20%	16V
R105	1-249-425-11	CARBON	4.7K 5% 1/6W	C1202	1-108-622-91	MYLAR	0.0047MF	10%	100V
R106	1-249-425-11	CARBON	4.7K 5% 1/6W	C1203	1-124-233-00	ELECT	10MF	20%	16V
R133	1-247-804-00	CARBON	75 5% 1/6W	C1204	1-124-233-00	ELECT	10MF	20%	16V
*****				C1205	1-108-630-91	MYLAR	0.022MF	10%	100V
*A-1394-113-A K1 BOARD, COMPLETE				C1206	1-106-196-00	MYLAR	0.01MF	10%	100V
*****				C1207	1-124-258-00	ELECT	3.3MF	20%	50V
*1-564-354-00	PLUG, CONNECTOR (2.5MM) 3P			C1208	1-130-309-00	FILM	0.033MF	5%	100V
*1-564-443-11	PLUG, CONNECTOR (2.5MM) 7P			C1209	1-124-233-00	ELECT	10MF	20%	16V
*1-564-446-11	PLUG, CONNECTOR (2.5MM) 10P			C1211	1-124-259-00	ELECT	4.7MF	20%	50V
*1-566-056-11	PIN, CONNECTOR 4P			C1213	1-124-233-00	ELECT	10MF	20%	16V
*1-566-057-11	PIN, CONNECTOR 5P			C1214	1-130-279-00	FILM	0.0018MF	5%	100V
<u>CAPACITOR</u>				C1215	1-124-255-00	ELECT	1MF	20%	50V
C101	1-124-259-00	ELECT	4.7MF 20% 50V	C1216	1-124-259-00	ELECT	4.7MF	20%	50V
C102	1-124-259-00	ELECT	4.7MF 20% 50V	C1217	1-124-233-00	ELECT	10MF	20%	16V
C103	1-124-259-00	ELECT	4.7MF 20% 50V	C1218	1-124-233-00	ELECT	10MF	20%	16V
C104	1-102-114-00	CERAMIC	470PF 10% 50V	C1219	1-124-475-11	ELECT	470MF	20%	16V
C105	1-102-114-00	CERAMIC	470PF 10% 50V	C1220	1-124-475-11	ELECT	470MF	20%	16V
C107	1-124-233-00	ELECT	10MF 20% 16V	C1221	1-108-622-91	MYLAR	0.0047MF	10%	100V
C108	1-124-235-91	ELECT	33MF 20% 16V	C1222	1-124-233-00	ELECT	10MF	20%	16V
C109	1-102-114-00	CERAMIC	470PF 10% 50V	C1223	1-124-233-00	ELECT	10MF	20%	16V
C110	1-102-114-00	CERAMIC	470PF 10% 50V	C1225	1-124-233-00	ELECT	10MF	20%	16V
C112	1-124-259-00	ELECT	4.7MF 20% 50V	C1226	1-124-255-00	ELECT	1MF	20%	50V
C113	1-124-259-00	ELECT	4.7MF 20% 50V	C1227	1-135-165-00	FILM	0.1MF	5%	50V
C114	1-124-259-00	ELECT	4.7MF 20% 50V	C1228	1-108-587-00	MYLAR	0.022MF	5%	50V
C115	1-124-233-00	ELECT	10MF 20% 16V	C1229	1-124-645-11	ELECT	10MF	20%	16V
C116	1-124-235-91	ELECT	33MF 20% 16V	C1230	1-106-180-00	MYLAR	0.0022MF	5%	50V
C117	1-124-233-00	ELECT	10MF 20% 16V	C1231	1-124-233-00	ELECT	10MF	20%	16V
C118	1-124-235-91	ELECT	33MF 20% 16V	C1232	1-123-321-00	ELECT	220MF	20%	16V
C119	1-124-236-00	ELECT	47MF 20% 16V	C1233	1-131-368-00	TANTALUM	3.3MF	10%	16V
C120	1-124-235-91	ELECT	33MF 20% 16V	C1234	1-124-258-00	ELECT	3.3MF	20%	50V
C121	1-124-236-00	ELECT	47MF 20% 16V	C1235	1-131-371-00	TANTALUM	10MF	10%	16V
C122	1-124-235-91	ELECT	33MF 20% 16V	C1236	1-131-361-00	TANTALUM	2.2MF	10%	16V
C123	1-124-235-91	ELECT	33MF 20% 16V	C1237	1-124-234-00	ELECT	22MF	20%	16V
C130	1-124-235-91	ELECT	33MF 20% 16V	<u>CONNECTOR</u>					
C131	1-124-235-91	ELECT	33MF 20% 16V	CN101	1-537-030-11	TERMINAL, PUSH			
C132	1-124-235-91	ELECT	33MF 20% 16V	<u>DIODE</u>					
C133	1-124-235-91	ELECT	33MF 20% 16V	D100	8-719-911-19	DIODE 1SS119			
C134	1-124-233-00	ELECT	10MF 20% 16V	D101	8-719-911-19	DIODE 1SS119			
C135	1-102-959-00	CERAMIC	22PF 5% 50V	D102	8-719-911-19	DIODE 1SS119			
C136	1-101-004-00	CERAMIC	0.01MF 50V	D103	8-719-911-19	DIODE 1SS119			
C137	1-124-236-00	ELECT	47MF 20% 16V	D104	8-719-911-19	DIODE 1SS119			
C139	1-124-119-00	ELECT	330MF 20% 16V	D105	8-719-000-12	DIODE MC931			
C141	1-101-003-00	CERAMIC	0.0047MF 50V	D106	8-719-000-12	DIODE MC931			
C142	1-101-003-00	CERAMIC	0.0047MF 50V	D107	8-719-000-12	DIODE MC931			
C143	1-101-003-00	CERAMIC	0.0047MF 50V	D108	8-719-000-12	DIODE MC931			
C144	1-101-003-00	CERAMIC	0.0047MF 50V	D1201	8-719-911-19	DIODE 1SS119			
C156	1-124-233-00	ELECT	10MF 20% 16V	D1202	8-719-911-19	DIODE 1SS119			
C998	1-136-173-00	FILM	0.47MF 5% 50V						
C999	1-136-173-00	FILM	0.47MF 5% 50V						

K1

Ref.No.	Part No.	Description	Remark	Ref.No.	Part No.	Description	Remark
<u>IC</u>				R131	1-247-804-00	CARBON	75 5% 1/6W
IC101	8-759-340-52	IC M014052BP		R132	1-247-804-00	CARBON	75 5% 1/6W
IC102	8-759-340-52	IC M014052BP		R134	1-247-859-00	CARBON	15K 5% 1/6W
IC1201	8-752-011-20	IC CX20112		R135	1-247-859-00	CARBON	15K 5% 1/6W
IC1202	8-752-030-26	IC CXA0111P		R136	1-247-859-00	CARBON	15K 5% 1/6W
<u>JACK</u>				R137	1-247-859-00	CARBON	15K 5% 1/6W
J101	1-563-548-11	JACK BLOCK, PIN (BNC) 9P		R138	1-247-851-00	CARBON	6.8K 5% 1/6W
<u>COIL</u>				R139	1-247-851-00	CARBON	6.8K 5% 1/6W
L1201	1-408-242-00	MICRO INDUCTOR 10MMH		R140	1-247-851-00	CARBON	6.8K 5% 1/6W
<u>TRANSISTOR</u>				R141	1-247-851-00	CARBON	6.8K 5% 1/6W
Q100	8-729-178-54	TRANSISTOR 2SC2785		R142	1-249-417-11	CARBON	1K 5% 1/6W
Q101	8-729-178-54	TRANSISTOR 2SC2785		R143	1-249-417-11	CARBON	1K 5% 1/6W
Q102	8-729-178-54	TRANSISTOR 2SC2785		R144	1-249-417-11	CARBON	1K 5% 1/6W
Q103	8-729-178-54	TRANSISTOR 2SC2785		R145	1-249-417-11	CARBON	1K 5% 1/6W
Q104	8-729-178-54	TRANSISTOR 2SC2785		R146	1-249-435-11	CARBON	33K 5% 1/6W
Q105	8-729-117-54	TRANSISTOR 2SA1175		R147	1-249-435-11	CARBON	33K 5% 1/6W
Q106	8-729-117-54	TRANSISTOR 2SA1175		R148	1-249-435-11	CARBON	33K 5% 1/6W
Q107	8-729-117-54	TRANSISTOR 2SA1175		R149	1-249-435-11	CARBON	33K 5% 1/6W
Q108	8-729-117-54	TRANSISTOR 2SA1175		R150	1-249-420-11	CARBON	1.8K 5% 1/6W
Q109	8-729-178-54	TRANSISTOR 2SC2785		R151	1-247-895-00	CARBON	470K 5% 1/6W
Q1203	8-729-117-54	TRANSISTOR 2SA1175		R152	1-249-414-11	CARBON	560 5% 1/6W
Q1204	8-729-178-54	TRANSISTOR 2SC2785		R153	1-247-833-00	CARBON	1.2K 5% 1/6W
<u>RESISTOR</u>				R154	1-247-719-11	CARBON	3.3K 5% 1/4W
R101	1-249-425-11	CARBON	4.7K 5% 1/6W	R155	1-249-420-11	CARBON	1.8K 5% 1/6W
R102	1-249-425-11	CARBON	4.7K 5% 1/6W	R156	1-249-429-11	CARBON	10K 5% 1/6W
R103	1-249-425-11	CARBON	4.7K 5% 1/6W	R157	1-249-423-11	CARBON	3.3K 5% 1/6W
R104	1-249-425-11	CARBON	4.7K 5% 1/6W	R158	1-249-419-11	CARBON	1.5K 5% 1/6W
R107	1-247-887-00	CARBON	220K 5% 1/6W	R159	1-249-417-11	CARBON	1K 5% 1/6W
R108	1-247-887-00	CARBON	220K 5% 1/6W	R160	1-249-417-11	CARBON	1K 5% 1/6W
R109	1-247-887-00	CARBON	220K 5% 1/6W	R161	1-249-415-11	CARBON	560 5% 1/6W
R110	1-249-417-11	CARBON	1K 5% 1/6W	R162	1-247-804-00	CARBON	75 5% 1/6W
R111	1-249-417-11	CARBON	1K 5% 1/6W	R165	1-247-859-00	CARBON	15K 5% 1/6W
R112	1-249-417-11	CARBON	1K 5% 1/6W	R166	1-247-875-00	CARBON	68K 5% 1/6W
R113	1-247-713-11	CARBON	1K 5% 1/4W	R167	1-247-859-00	CARBON	15K 5% 1/6W
R114	1-247-859-00	CARBON	15K 5% 1/6W	R168	1-249-417-11	CARBON	1K 5% 1/6W
R115	1-247-875-00	CARBON	68K 5% 1/6W	R169	1-247-817-00	CARBON	270 5% 1/6W
R116	1-247-859-00	CARBON	15K 5% 1/6W	R170	1-247-819-00	CARBON	330 5% 1/6W
R117	1-249-417-11	CARBON	1K 5% 1/6W	R171	1-249-437-11	CARBON	47K 5% 1/6W
R118	1-247-817-00	CARBON	270 5% 1/6W	R1202	1-249-425-11	CARBON	4.7K 5% 1/6W
R119	1-247-819-00	CARBON	330 5% 1/6W	R1203	1-247-823-00	CARBON	470 5% 1/6W
R120	1-249-432-11	CARBON	18K 5% 1/6W	R1204	1-249-417-11	CARBON	1K 5% 1/6W
R121	1-247-887-00	CARBON	220K 5% 1/6W	R1205	1-247-133-00	CARBON	1.2K 5% 1/4W
R122	1-247-887-00	CARBON	220K 5% 1/6W	R1207	1-249-429-11	CARBON	10K 5% 1/6W
R123	1-247-887-00	CARBON	220K 5% 1/6W	R1208	1-249-425-11	CARBON	4.7K 5% 1/6W
R124	1-249-417-11	CARBON	1K 5% 1/6W	R1209	1-249-417-11	CARBON	1K 5% 1/6W
R125	1-249-417-11	CARBON	1K 5% 1/6W	R1210	1-249-417-11	CARBON	1K 5% 1/6W
R126	1-249-417-11	CARBON	1K 5% 1/6W	R1211	1-249-441-11	CARBON	100K 5% 1/6W
R127	1-247-713-11	CARBON	1K 5% 1/4W	R1212	1-215-470-00	METAL	110K 1% 1/6W
				R1213	1-215-470-00	METAL	110K 1% 1/6W
				R1214	1-247-819-00	CARBON	330 5% 1/6W
				R1215	1-249-432-11	CARBON	18K 5% 1/6W
				R1217	1-215-430-00	METAL	2.4K 1% 1/6W
				R1218	1-247-903-00	CARBON	1M 5% 1/6W

K1

Ref. No.	Part No.	Description	Remark
R1219	1-247-853-00	CARBON	8.2K 5% 1/6W
R1220	1-249-414-11	CARBON	560 5% 1/6W
R1220	1-249-423-11	CARBON	3.3K 5% 1/6W
R1222	1-249-429-11	CARBON	10K 5% 1/6W
R1223	1-247-819-00	CARBON	330 5% 1/6W
R1224	1-247-849-00	CARBON	5.6K 5% 1/6W
R1225	1-247-819-00	CARBON	330 5% 1/6W
R1226	1-247-839-00	CARBON	2.2K 5% 1/6W
R1227	1-249-435-11	CARBON	33K 5% 1/6W
R1228	1-215-467-00	METAL	560K 1% 1/6W
R1229	1-215-449-00	METAL	15K 1% 1/6W
R1230	1-247-839-00	CARBON	2.2K 5% 1/6W

VARIABLE RESISTOR

RV504	1-228-848-00	RES. VAR. CARBON 10K
RV1201	1-228-728-00	RES. ADJ. CERAMIC CARBON 100K
RV1202	1-228-727-00	RES. ADJ. CERAMIC CARBON 47K
RV1203	1-228-731-00	RES. ADJ. CERAMIC CARBON 470K
RV1204	1-228-724-00	RES. ADJ. CERAMIC CARBON 10K
RV1205	1-228-724-00	RES. ADJ. CERAMIC CARBON 10K
RV1206	1-228-723-00	RES. ADJ. CERAMIC CARBON 4.7K
RV1207	1-228-724-00	RES. ADJ. CERAMIC CARBON 10K
RV1208	1-228-724-00	RES. ADJ. CERAMIC CARBON 10K
RV1209	1-228-724-00	RES. ADJ. CERAMIC CARBON 10K
RV1210	1-228-724-00	RES. ADJ. CERAMIC CARBON 10K

MISCELLANEOUS

1-205-899-11	RES. CEMENT WIREWOUND 3.9
1-451-255-12	DEFLECTION Yoke (SY-184)
1-452-032-00	MAGNET, DISK; 10MM Ø
1-452-094-00	MAGNET, ROTABLE DISK; 15MM Ø
1-452-146-21	MAGNET, BMC
1-452-391-11	NECK ASSY, CRT (NA305)
1-506-409-00	ADAPTOR, CONVERSION
1-534-817-71	CORD, POWER
1-554-966-12	SWITCH, PUSH (AC POWER) (1 KEY)
1-557-066-00	CABLE, P-P
1-563-204-13	SOCKET, ANTENNA (PAL/SECAM)
1-566-316-11	CONNECTOR, CONVERSION
1-801-1-426-289-11	COIL, DEMAGNETIZATION
RV901A 1-237-280-11	RESISTOR ASSY, HIGH-VOLTAGE
RV902A 1-230-212-11	RESISTOR ASSY, HIGH-VOLTAGE
T851 A 1-439-332-52	TRANSFORMER ASSY. FLBACK
V901 A 1-8-736-652-05	CRT (BARJX10X)

ACCESSORIES AND PACKING MATERIALS

Part No.	Description	Remark
A-1470-745-A	COMMANDER ASSY (RM-646)	
1-417-094-00	MIXER, U/V (PAL)	
1-506-409-00	ADAPTOR, CONVERSION	
1-566-316-11	CONNECTOR, CONVERSION	
*4-374-402-01	SHEET, CORRUGATED FIBERBOARD	
*4-380-432-01	BAG, PROTECTION	
*4-382-117-01	CUSHION (UPPER) (ASSY)	
*4-382-118-01	CUSHION (LOWER) (ASSY)	
4-382-131-01	INDIVIDUAL CARTON	
4-382-132-01	CUSION (FRONT)	
4-482-282-51	MANUAL, INSTRUCTION	
4-490-241-41	MANUAL, INSTANT INFORMATION	

The components identified by shading and mark A are critical for safety. Replace only with part number specified.

KV-27VX1P

RM-646 SS-X4(PX)

SONY SERVICE MANUAL



PX Model
Chassis No. SCC-A57A-A
March, 1987
No. 1

CORRECTION

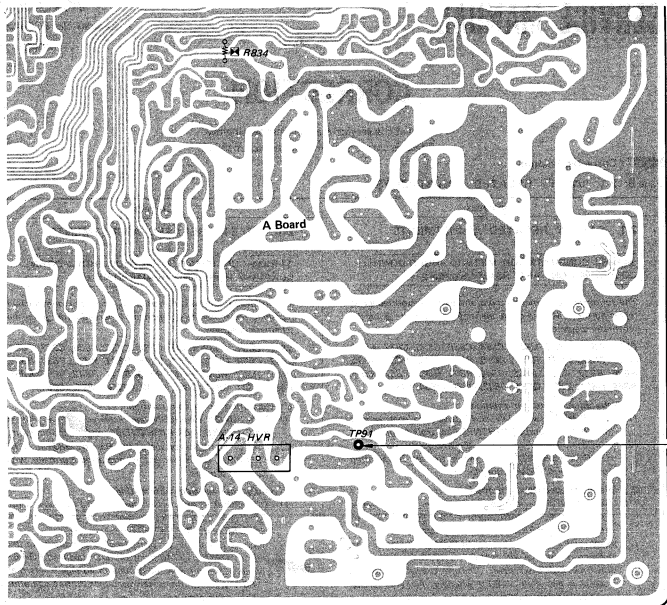
Correct the service manual as shown below.
File this correction with the service manual.




 : Corrected Portion

Page 5: 2-1. SAFETY RELATED ADJUSTMENTS

Incorrect	Correct
<p>2-1. SAFETY RELATED ADJUSTMENTS</p> <p>H R834 CONFIRMATION METHOD (HOLD-DOWN CONFIRMATION) AND READJUSTMENT</p> <p>The following adjustment should always be performed when replacing the following components (marked with  on the schematic diagram).</p> <p>C825, C831, C832, C833, C834, C835, C836, C837, C856, C857, C858, R506, R507, R818, R831, R832, R834, R835, R836, R837, R838, R839, R840, R841, R842, R857, R858, R859, D831, D832, Q831, Q832, Q833, Q834, IC501.</p> <p>1. Preparation before confirmation.</p> <p>(1) Turn POWER switch ON, and receive dot signals and set the PICTURE and BRIGHTNESS controls to minimum.</p> <p>(2) Confirm that the voltage of the protector terminal of H.V.R is 15.50 \pm 2.50 V dc when the set is operating normally with 120VAC supply.</p> <p>2. Hold-down operation confirmation.</p> <p>(1) Turn POWER switch ON, and receive entirely white signals and adjust IABL current to 1650 \pm 30 μA with PICTURE and BRIGHTNESS etc. controls.</p> <p>(2) Apply DC voltage of over 14.80 V gradually to the protector terminal of H.V.R via IT40 from the DC stabilized POWER source. Confirm that the minimum voltage is less than 14.80 V whereby the raster disappears during operation of hold-down circuit.</p> <p>Note: When the hold-down circuit starts operating switch OFF the POWER of the set immediately.</p> <p>(3) Turn POWER switch ON, and receive dot signals and adjust IABL current to 220 \pm 50 μA with PICTURE and BRIGHTNESS etc. controls.</p> <p>(4) Apply DC voltage of over 16.00 V gradually to the protector terminal of H.V.R via IT40 from the DC stabilized POWER source. Confirm that the minimum voltage is less than 16.00 V whereby the raster disappears during operation of hold-down circuit.</p> <p>Note: When the hold-down circuit start operating switch OFF the POWER of the set immediately.</p>	<p>2-1. SAFETY RELATED ADJUSTMENTS</p> <p>H R834 CONFIRMATION METHOD (HOLD-DOWN CONFIRMATION) AND READJUSTMENT</p> <p>The following adjustment should always be performed when replacing the following components (marked with  on the schematic diagram).</p> <p>C825, C831, C832, C833, C834, C835, C836, C837, C856, C857, C858, R506, R507, R818, R831, R832, R834, R835, R836, R837, R838, R839, R840, R841, R842, R857, R858, R859, D831, D832, Q831, Q832, Q833, Q834, IC501.</p> <p>1. Preparation before confirmation.</p> <p>(1) Turn POWER switch ON, and receive dot signals and set the PICTURE and BRIGHTNESS controls to minimum.</p> <p>(2) Confirm that the voltage of the Base of Q831 is 15.50 \pm 2.50 V dc when the set is operating normally with 120VAC supply.</p> <p>2. Hold-down operation confirmation.</p> <p>(1) Turn POWER switch ON, and receive entirely white signals and adjust IABL current to 1650 \pm 30 μA with PICTURE and BRIGHTNESS etc. controls.</p> <p>(2) Apply DC voltage of over 14.80 V gradually to the Base of Q831 via IT40 from the DC stabilized POWER source. Confirm that the minimum voltage is less than 14.80 V whereby the raster disappears during operation of hold-down circuit.</p> <p>Note: When the hold-down circuit starts operating switch OFF the POWER of the set immediately.</p> <p>(3) Turn POWER switch ON, and receive dot signals and adjust IABL current to 220 \pm 50 μA with PICTURE and BRIGHTNESS etc. controls.</p> <p>(4) Apply DC voltage of over 16.00 V gradually to the Base of Q831 via IT40 from the DC stabilized POWER source. Confirm that the minimum voltage is less than 16.00 V whereby the raster disappears during operation of hold-down circuit.</p> <p>Note: When the hold-down circuit start operating switch OFF the POWER of the set immediately.</p>

Incorrect



Incorrect	Correct
<p data-bbox="45 238 394 272">CONFIRMATION WHEN REPLACING H.V.R (HIGH VOLTAGE REGISTOR)</p> <p data-bbox="45 292 420 358"><i>The following adjustments should always be performed with reference to whether an X-ray radiation control circuit is connected or not, when replacing H.V.R (High Voltage Registor).</i></p> <ul data-bbox="45 368 420 416" style="list-style-type: none"> <i>* This check is to be performed when H.V.R only is replaced, and has no relation to the hold-down circuit re-adjustment for replacement of parts marked .</i> <p data-bbox="45 426 420 474">1. When the set is operation normally with 120VAC supply, confirm that the voltage of the protector terminal of H.V.R is 15.50 ± 2.50 V dc.</p>	<p data-bbox="491 238 840 272">CONFIRMATION WHEN REPLACING H.V.R (HIGH VOLTAGE REGISTOR)</p> <p data-bbox="491 292 866 358"><i>The following adjustments should always be performed with reference to whether an X-ray radiation control circuit is connected or not, when replacing H.V.R (High Voltage Registor).</i></p> <ul data-bbox="491 368 866 416" style="list-style-type: none"> <i>* This check is to be performed when H.V.R only is replaced, and has no relation to the hold-down circuit re-adjustment for replacement of parts marked .</i> <p data-bbox="491 426 866 474">1. When the set is operation normally with 120VAC supply, confirm that the voltage of the Base of Q831 is 15.50 ± 2.50 V dc.</p> 

SONY TRINITRON® COLOR TV KV-27VX1P/RM-646/SS-X4(PX)

PX Model

Chassis No. SCC-A57A-A

VX CHASSIS

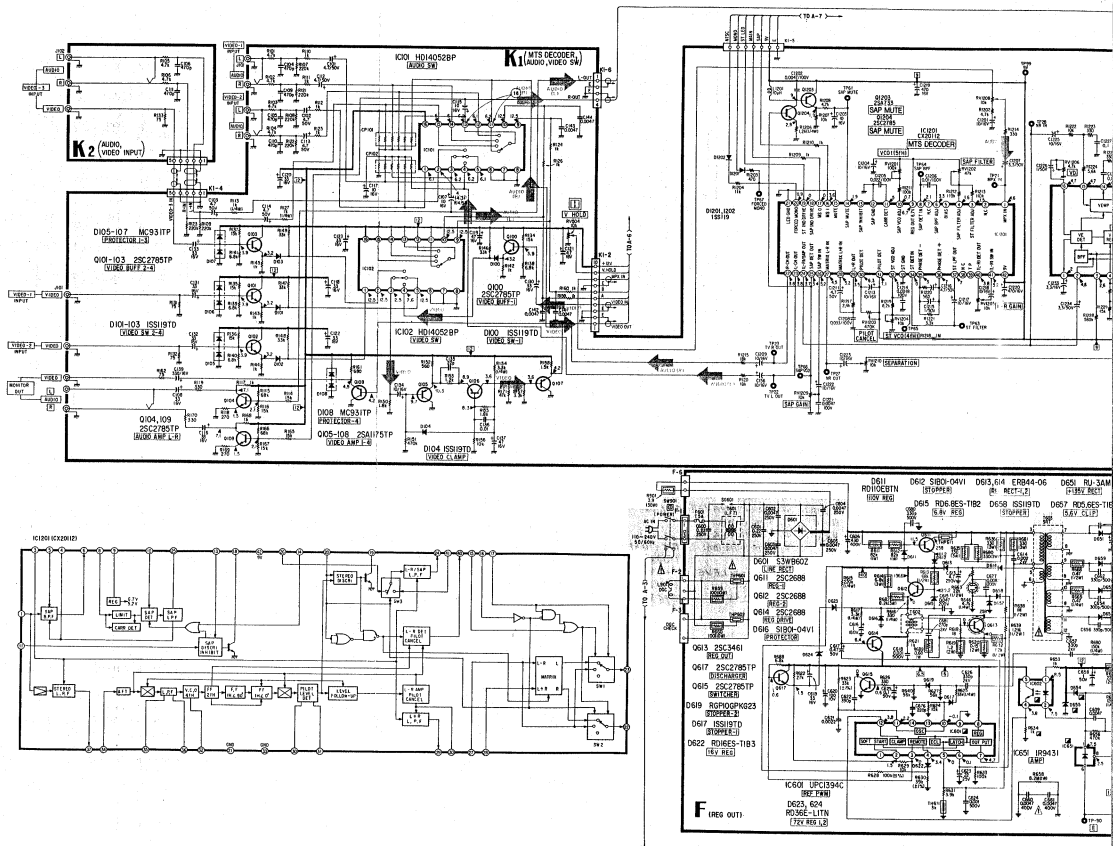
SAFETY-RELATED COMPONENT WARNING !!

COMPONENTS IDENTIFIED BY SHADING AND MARK **A** ON THE SCHEMATIC DIAGRAMS, EXPLODED VIEWS AND IN THE PARTS LIST ARE CRITICAL TO SAFE OPERATION. REPLACE THESE COMPONENTS WITH SONY PARTS WHOSE PART NUMBERS APPEAR AS SHOWN IN THIS MANUAL OR IN SUPPLEMENTS PUBLISHED BY SONY. CIRCUIT ADJUSTMENTS THAT ARE CRITICAL TO SAFE OPERATION ARE IDENTIFIED IN THIS MANUAL. FOLLOW THESE PROCEDURES WHENEVER CRITICAL COMPONENTS ARE REPLACED OR IMPROPER OPERATION IS SUSPECTED.

- All capacitors are in μF unless otherwise noted, pF : μF 50 WV or less are not indicated except for electrolytics.
- All resistors are in ohms, $\frac{1}{4}$ W unless otherwise noted, k: 1000 Ω , M: 1000 k Ω .
- \square : nonflammable resistor.
- \square : internal component.
- \square : panel designation.
- All variable and adjustable resistors have characteristic curve B, unless otherwise noted.
- The components identified by **K** in this basic schematic diagram have been carefully factory-selected for each set in order to satisfy regulations regarding X-ray radiation. Select the resistance value according to SAFETY RELATED ADJUSTMENT of the service manual.
- When replacing components identified by **□**, make the necessary adjustments indicated. If results do not meet the specified value, change the component identified by **□** and repeat the adjustment until the specified value is achieved.
- Refer to the service manual for the adjustment of components identified by **K**.
- All voltages are in V.
- Voltages are dc with respect to ground unless otherwise noted.
- Readings are taken with a 10 M Ω digital multimeter.
- Readings are taken with a color-bar signal input.
- Voltage variations may be noted due to normal production tolerances.
- no mark: with PAL color-bar signal received.
- \square : with NTSC color-bar signal received.
- * : Can not be measured for voltage variations.
- --- B+ bus.
- --- B- bus.

Note: The components identified by shading and mark **A** are critical for safety. Replace only with part number specified.

SCHEMATIC DIAGRAM



Semiconductor Lead Layouts

BX-1387



M58655P

$\mu\text{PC1394C}$

143321108 B

143321108 B

143321108 B

25A933S

25C1740

25C1740

25C1740

25C1740

25B740

25C1474

25D789

25D789

25D789

EQA02-03A1V3

ERB12-02V1

ERB43-06

ERB44-06

ES1F

ERC26-15S

V30N

anode

anode

anode

S3W602

Marking

Marking

Marking

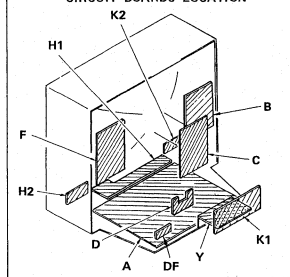
Marking

L
M
N
O
P
Q
R
S
T
U
V

• Semiconductor Lead Layouts

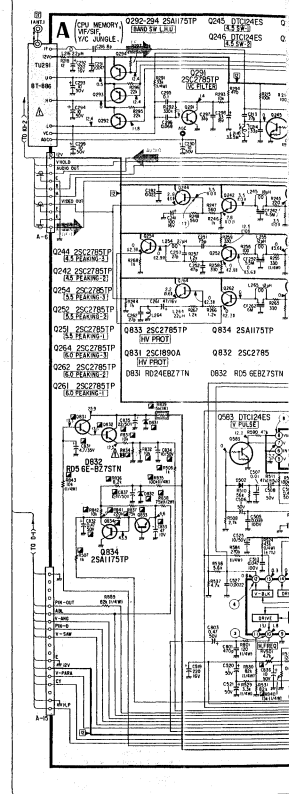
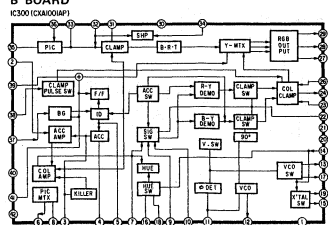


CIRCUIT BOARDS LOCATION



(57p-pH)	(107p-pH)	(57p-pH)	NTSC 3.58 (147p-pH)	(87p-pH)	PAL 3.58 (147p-pH)	PAL 3.58 (147p-pH)	PAL 3.58 (147p-pH)	(57p-pH)	NTSC 3.58 (147p-pH)
NTSC 3.58 (47p-pH)	NTSC 3.58 (107p-pH)	5.7p-pH (47p-pH)	5.7p-pH (147p-pH)	PAL 47p-pH (147p-pH)	PAL 57p-pH (147p-pH)	NTSC 3.58 (47p-pH)	NTSC 3.58 (147p-pH)	0.57p-pH (147p-pH)	PAL 90p-pH (147p-pH)
NTSC 3.58 (47p-pH)	(0.57p-pH)	(1000p-pH)	(90p-pH)	2.47p-pH (147p-pH)	NTSC 3.58 (0.87p-pH)	PAL 1.27p-pH (147p-pH)	NTSC 3.58 (0.77p-pH)	0.57p-pH (147p-pH)	(247p-pH)
(127p-pH)	PAL 27p-pH (147p-pH)	90p-pH (147p-pH)	PAL 47p-pH (147p-pH)	PAL 6.47p-pH (147p-pH)	NTSC 3.58 (0.57p-pH)	PAL 4.87p-pH (147p-pH)	(1.37p-pH (147p-pH))	0.57p-pH (147p-pH)	27p-pH (147p-pH)
(3.37p-pH)	(0.37p-pH)	27p-pH (147p-pH)	NTSC 3.58 (1.47p-pH)	PAL 1.27p-pH (147p-pH)	NTSC 3.58 (47p-pH)	PAL 17p-pH (147p-pH)	NTSC 3.58 (1.07p-pH)	NTSC 3.58 (1.37p-pH)	NTSC 3.58 (107p-pH)

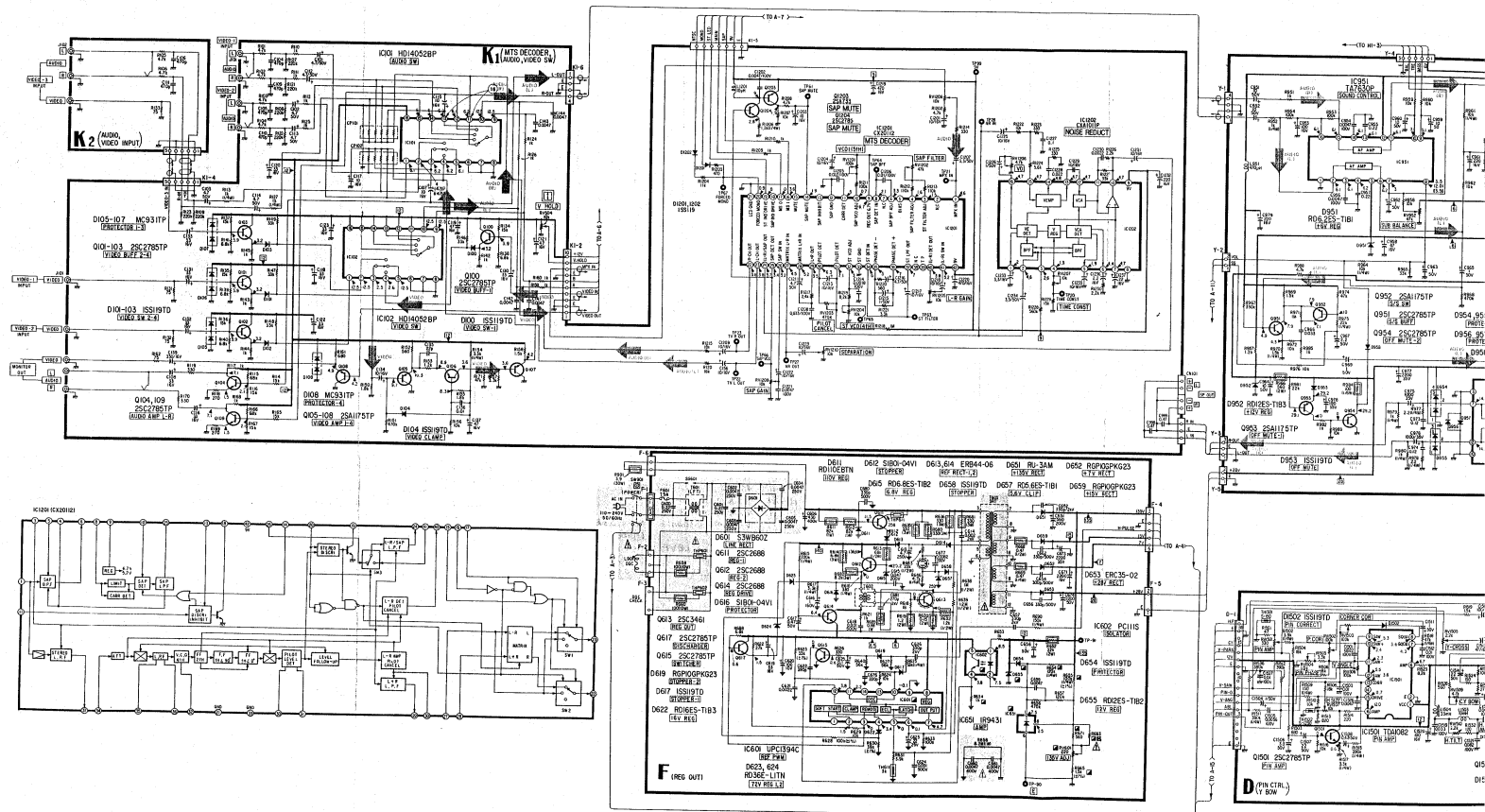
B BOARD



1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16

SCHEMATIC DIAGRAM

2



• Semiconductor Lead Symbols



MS8656P
μPC1394C
1-1231108-8
1-1231108-9
1-1231108-10

25A9335
25C1740
25D789

25B740
25C1740
25D789

EOA02-03A1V3
ERB12-02V1
ERB43-08
ERB44-06
ES1F
ES1F

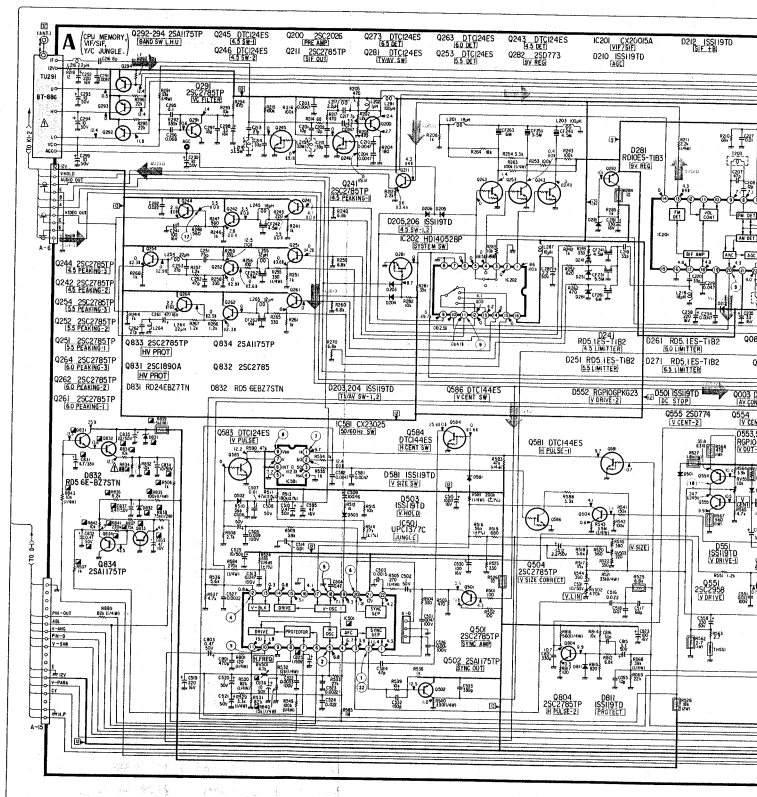
ERC26-155
V30N
anode

S3W8602
Marking

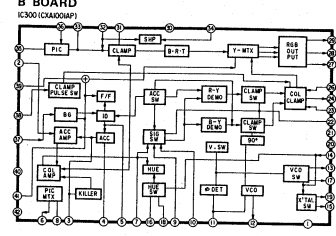
A IC01 MEMORY IC02 25A175TSP IC03 25C1740 IC04 25D789 IC05 25B740 IC06 25C1740 IC07 25D789 IC08 25B740 IC09 25C1740 IC10 25D789 IC11 25B740 IC12 25C1740 IC13 25D789 IC14 25B740 IC15 25C1740 IC16 25D789 IC17 25B740 IC18 25C1740 IC19 25D789 IC20 25B740 IC21 25C1740 IC22 25D789 IC23 25B740 IC24 25C1740 IC25 25D789 IC26 25B740 IC27 25C1740 IC28 25D789 IC29 25B740 IC30 25C1740 IC31 25D789 IC32 25B740 IC33 25C1740 IC34 25D789 IC35 25B740 IC36 25C1740 IC37 25D789 IC38 25B740 IC39 25C1740 IC40 25D789 IC41 25B740 IC42 25C1740 IC43 25D789 IC44 25B740 IC45 25C1740 IC46 25D789 IC47 25B740 IC48 25C1740 IC49 25D789 IC50 25B740 IC51 25C1740 IC52 25D789 IC53 25B740 IC54 25C1740 IC55 25D789 IC56 25B740 IC57 25C1740 IC58 25D789 IC59 25B740 IC60 25C1740 IC61 25D789 IC62 25B740 IC63 25C1740 IC64 25D789 IC65 25B740 IC66 25C1740 IC67 25D789 IC68 25B740 IC69 25C1740 IC70 25D789 IC71 25B740 IC72 25C1740 IC73 25D789 IC74 25B740 IC75 25C1740 IC76 25D789 IC77 25B740 IC78 25C1740 IC79 25D789 IC80 25B740 IC81 25C1740 IC82 25D789 IC83 25B740 IC84 25C1740 IC85 25D789 IC86 25B740 IC87 25C1740 IC88 25D789 IC89 25B740 IC90 25C1740 IC91 25D789 IC92 25B740 IC93 25C1740 IC94 25D789 IC95 25B740 IC96 25C1740 IC97 25D789 IC98 25B740 IC99 25C1740 IC100 25D789

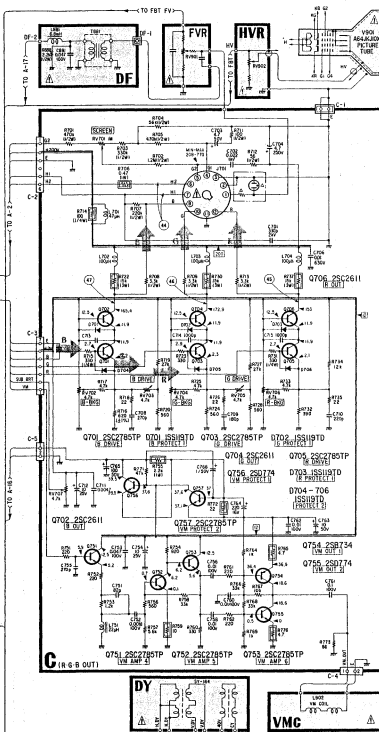
Semiconductor Lead Layouts

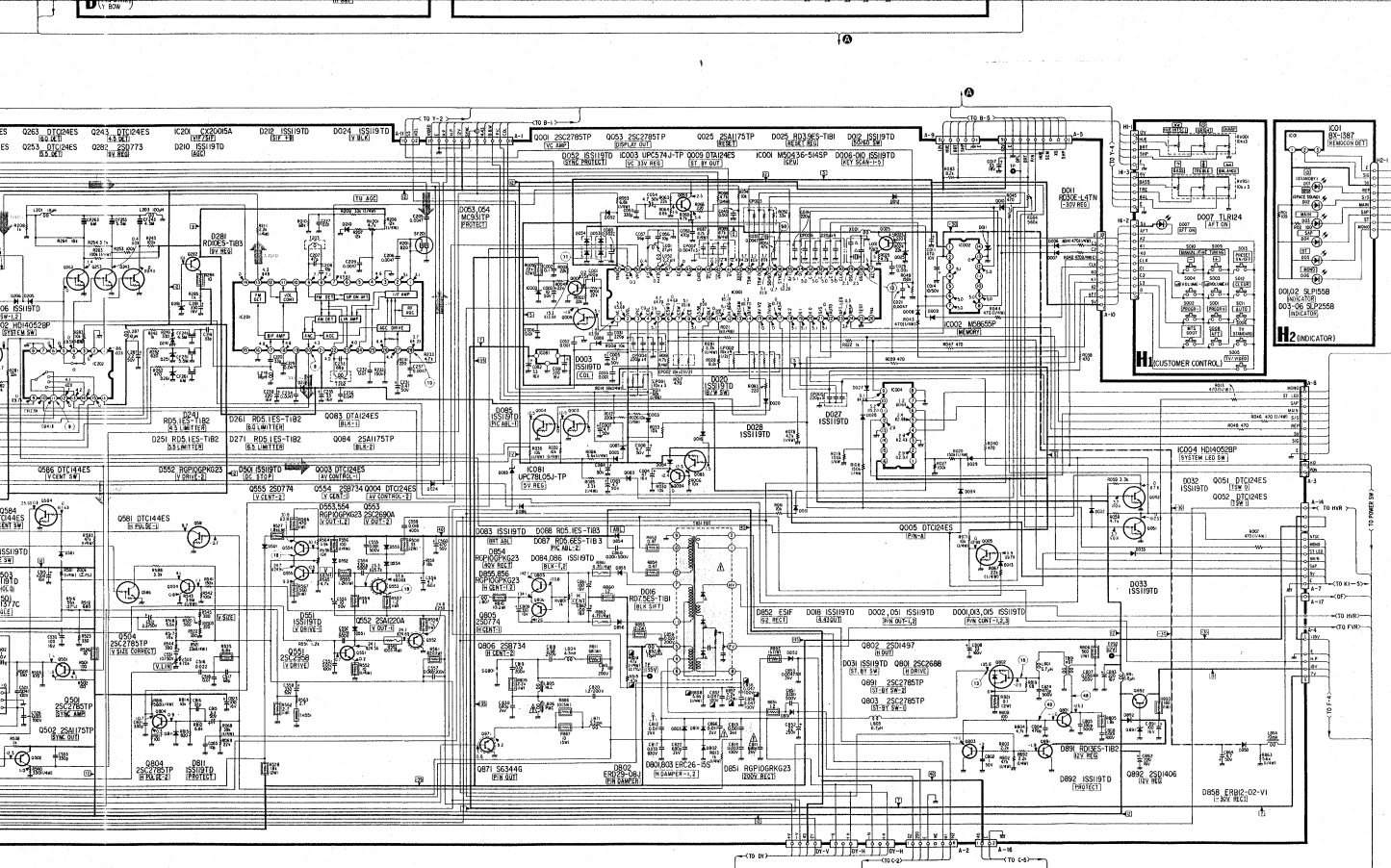
BX-1387



① PAL 1.2Vp-p (NTSC 3.58 4.0Vp-p)	② PAL 5Vp-p (NTSC 3.58 4.0Vp-p)	③ PAL 2.0Vp-p (NTSC 3.58 4.0Vp-p)	④ PAL 1.0Vp-p (NTSC 3.58 4.0Vp-p)	⑤ PAL 1.0Vp-p (NTSC 3.58 4.0Vp-p)
⑥ PAL 1.0Vp-p (NTSC 3.58 4.0Vp-p)	⑦ PAL 1.0Vp-p (NTSC 3.58 4.0Vp-p)	⑧ PAL 1.0Vp-p (NTSC 3.58 4.0Vp-p)	⑨ PAL 1.0Vp-p (NTSC 3.58 4.0Vp-p)	⑩ PAL 1.0Vp-p (NTSC 3.58 4.0Vp-p)
⑪ PAL 1.0Vp-p (NTSC 3.58 4.0Vp-p)	⑫ PAL 1.0Vp-p (NTSC 3.58 4.0Vp-p)	⑬ PAL 1.0Vp-p (NTSC 3.58 4.0Vp-p)	⑭ PAL 1.0Vp-p (NTSC 3.58 4.0Vp-p)	⑮ PAL 1.0Vp-p (NTSC 3.58 4.0Vp-p)
⑯ PAL 1.0Vp-p (NTSC 3.58 4.0Vp-p)	⑰ PAL 1.0Vp-p (NTSC 3.58 4.0Vp-p)	⑱ PAL 1.0Vp-p (NTSC 3.58 4.0Vp-p)	⑲ PAL 1.0Vp-p (NTSC 3.58 4.0Vp-p)	⑳ PAL 1.0Vp-p (NTSC 3.58 4.0Vp-p)
㉑ PAL 1.0Vp-p (NTSC 3.58 4.0Vp-p)	㉒ PAL 1.0Vp-p (NTSC 3.58 4.0Vp-p)	㉓ PAL 1.0Vp-p (NTSC 3.58 4.0Vp-p)	㉔ PAL 1.0Vp-p (NTSC 3.58 4.0Vp-p)	㉕ PAL 1.0Vp-p (NTSC 3.58 4.0Vp-p)



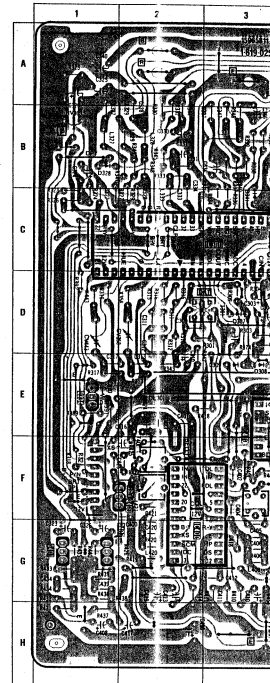




4 Sony C1526

A

B



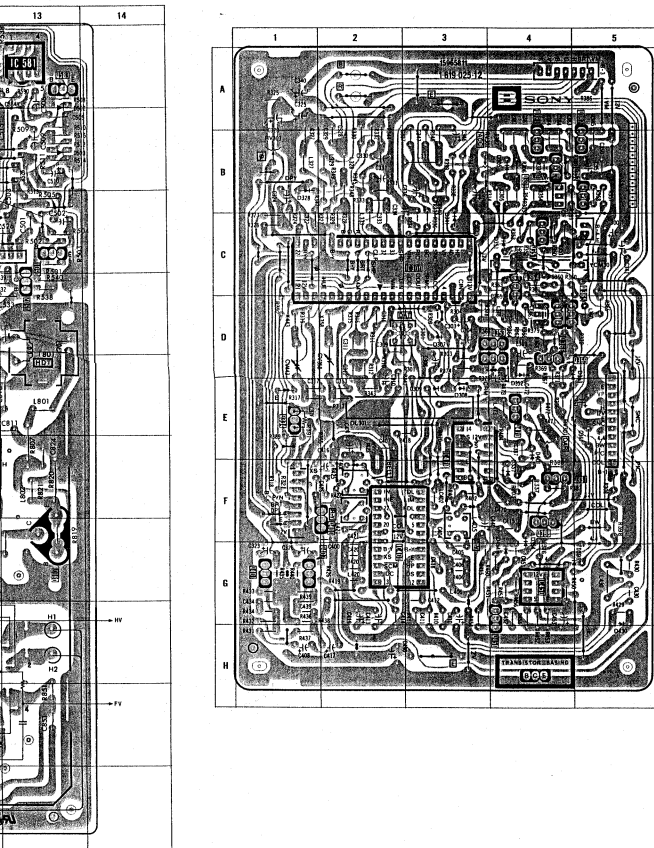
V. CENT RV551 = G-6

1. Receive NTSC signal.
2. Connect an electrolytic capacitor (47 μ F/16V) between Pin (1) and Pin (9) of IC501.
3. Connect frequency counter across pin (10) of IC501 and ground.

APC

1. Turn in a strong off-air signal

[Y CHROMA, NTSC 3.58, 4.43 SW]



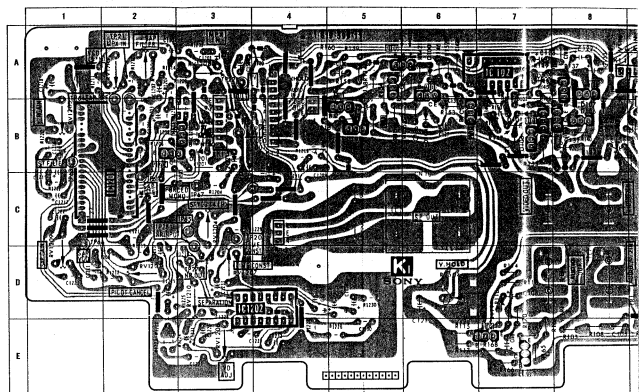
ACC ADJUSTMENT

1. Turn in a strong off-air signal.

APC ADJUSTMENT	IC300 = C-3, CV443 = D-1, CV358 = D-2
----------------	---------------------------------------

1. Apply MCC potential (approx. 5V) to pin (3) of IC300

[AUDIO, VIDEO SW, MTS DECODER]



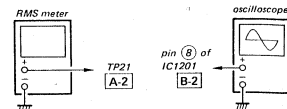
```

VMAIN: 400 Hz SINEWAVE (0.7 Vp-p)
(L+R) 100% modulation
VSUB: 400 Hz SINEWAVE (1.4 Vp-p)
(L-R) 100% modulation
VSAP: 400 Hz SINEWAVE
VSAP modulation: FM  $\pm 10$  kHz deviation
(100% MOD)
VSAP carrier LEVEL: 0.42 Vp-p
SAP carrier: 514 (78.67 kHz)
VPILOT: VPILOT LEVEL: 0.14 Vp-p
Carrier: 15,734 kHz

```

RV1202 = A-2

1. Input a 4f_H (62.936 kHz), 0.42 V_{p-p} sinewave signal to TP21 (MPX 1N).
2. Connect an oscilloscope to pin ⑧ of IC1201.
3. Adjust RV1202 (SAP FILTER) so that level is minimum.

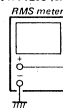


RV1201 - A-2

1. Input a 5f_H (78.67 kHz), 0.42 Vp-p sinewave signal to TP21 (MPX IN).
2. When let the high level (move then 2.5 V dc) to pin (14) of IC1201.
At this point, let the DC current voltage to pin (25) of IC1201 to becomes Va.
3. When let the low level (0 V) to pin (14) of IC1201.

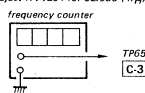
RV1209 = D-1

1. Input a VSAP of set-up signal to TP21.
2. Set the SAP MODE.
3. Connect the RMS meter to TP28 (NR-INPUT).
4. Adjust RV1209 (SAP GAIN) for 489 ± 15 mVrms.



RV1204 = C-3

1. Connect a 10 μ F/16 V capacitor to TP21 (MPX IN) and ground.
2. Connect a frequency counter to TP65.
3. Adjust RV1204 for 62.936 (4f_M) \pm 0.1 kHz.

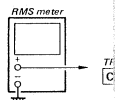


RV1203 = D-2

1. Input a V_{PILOT} of set-up signal to TP21.
2. Set the MAIN MODE.
3. Adjust RV1203 (PILOT CANCEL) so that the output from pin 40 of IC1201 becomes minimum by observing it by observing it by using an oscilloscope and viewing it through a filter ($f_H = 15.734 \text{ kHz}$).
4. Confirm the voltage pin (19) of IC1201 is 0 V dc.

RV

1. Input a $V_{SUB} + V_{PIL}$.
2. Set the MAIN MODE.
3. Connect a RMS meter
4. Adjust RV1205 (L-R)



VARIABLE DE-EMPHASIS

1. Set RV1206 (VD AD, the mechanical center.
2. Input sinewave of 300. At this point, let the
3. Input sinewave of 8.0. At this point, let the
4. Adjust RV1206 so that V_2 became $V_2 = V_1$.

NOISE REDUCTION

1. Adjust RV1207 to obtain the digital multimeter

ACC ADJUSTMENT	RV302 = B-3
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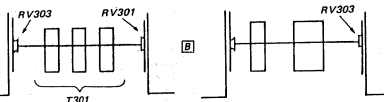
1. Turn in a strong off-air signal.
2. COLOR control NORMAL
- PICTURE control NORMAL
- BRIGHTNESS control click position
3. Adjust RV302 for suitable color intensity.
4. Confirm the color intensity does not change on other channels.

APC ADJUSTMENT	IC300 = C-3, CV443 = D-1, CV358 = D-2
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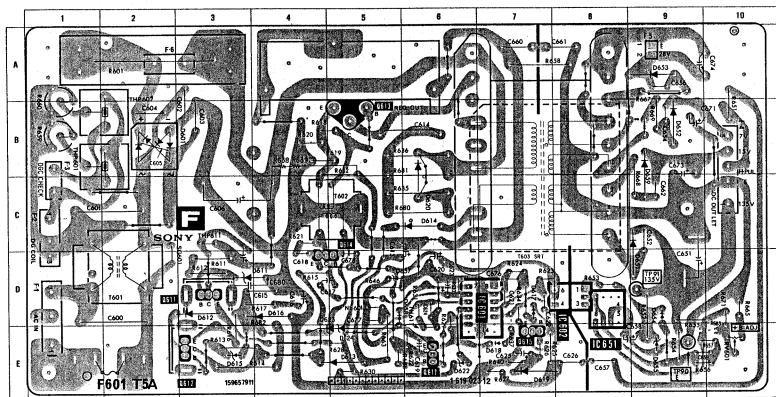
1. Apply MCC potential (approx. 5V) to pin ③ of IC300
2. Receive a PAL color-bar signal.
3. Short-circuit between the pin ⑪ and ⑫ of IC300 with a jumper wire.
4. Adjust CV443 to obtain the stable color picture.
5. Receive a NTSC color-bar signal.
6. Adjust CV358 to obtain the stable color picture.
7. Disconnect the jumper wire.

PAL DEMODULATION ADJUSTMENT IC300 = C-3, RV301 = E-4, T301 = D-3, RV303 = B-1

1. Apply Mcc potential (approx. 5V) to pin ③ of IC300.
2. Receive a PAL color-bar signal.
3. Connect an oscilloscope to the test-pin ②.
4. Adjust RV301 so that ② anti-PAL right section level is 0.
5. Adjust T301 so that ② waveform swing stops.
6. Connect an oscilloscope to the test-pin ①.
7. Adjust RV303 so that ① anti-PAL right section level is 0.
8. Perform all of the above steps while tracking.



F [REG OUT]



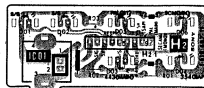
135V ADJUSTMENT RV601 = E-10

Adjust RV601 for $135 \pm 0.2V$ dc on the digital multimeter.

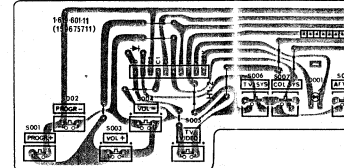
SAP VCO	RV1201 ^{REV} A-2
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1. Input a 5/4s [78.67 kHz], 0.42 V_{p-p} sine wave signal to TP21 (MPX IN).
When let the high level (move then 2.5 V dc) to pin (14) of IC1201.
At this point, let the DC current voltage to pin (26) of IC1201 to becomes Va.
3. When let the low level (0 V) to pin (14) of IC1201.
At this point, let the DC current voltage to pin (26) of IC201 becomes Vb.
Adjust RV1201 (SAP VCO) so that Vb becomes Vb = Va ± 0.1 V dc.

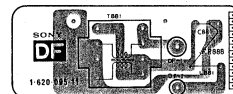
H₂ [INDICATOR]



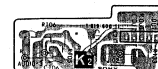
H₁ [CUSTOMER CONTROL]



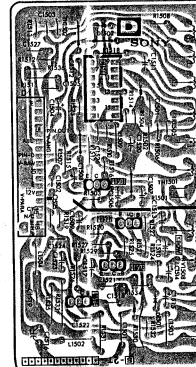
DF [BLK]



K₂ [AUDIO, VIDEO INPUT]

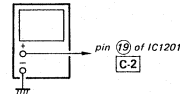


D [PIN CTRL, Y. BOW]

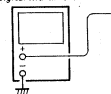


the digital multimeter

digital multimeter

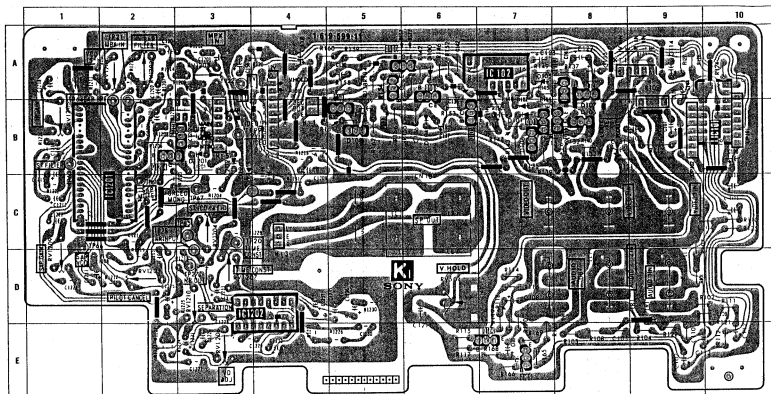


digital multimeter



K1

[AUDIO, VIDEO SW, MTS DECODER]

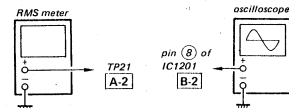


SIGNAL SET-UP

V_{MAIN} : 400 Hz SINEWAVE (0.7 Vp-p)
(L-R) : 100% modulation
(L-R) : 100% modulation
V_{SAP} : 400 Hz SINEWAVE
V_{SAP} modulation : FM ± 10 kHz deviation (100% MOD)
V_{SAP} carrier LEVEL : 0.42 Vp-p
SAP carrier : 5f_H (78.67 kHz)
V_{PILOT} : V_{PILOT} LEVEL : 0.14 Vp-p
Carrier : 15.734 kHz

SAP FILTER RV1202 = A-2

1. Input a 4f_H (62.936 kHz), 0.42 Vp-p sine wave signal to TP21 (MPX IN).
2. Connect an oscilloscope to pin ⑧ of IC1201.
3. Adjust RV1202 (SAP FILTER) so that level is minimum.



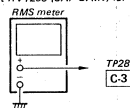
SAP VCO RV1201 = A-2

1. Input a 5f_H (78.67 kHz), 0.42 Vp-p sine wave signal to TP21 (MPX IN).
2. When let the high level (move than 2.5 V dc) to pin ⑭ of IC1201.
3. At this point, let the DC current voltage to pin ⑮ of IC1201 becomes V_b.
4. Adjust the level of (A-1) to pin ⑮ of IC1201.

SAP LEVEL

RV1209 = D-1

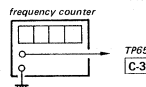
1. Input a V_{SAP} of set-up signal to TP21.
2. Set the SAP MODE.
3. Connect the RMS meter to TP28 (NR-INPUT).
4. Adjust RV1209 (SAP GAIN) for 489 ± 15 mVrms.



STEREO VCO

RV1204 = C-3

1. Connect a 10 μ F/16 V capacitor to TP21 (MPX IN) and ground.
2. Connect a frequency counter to TP65.
3. Adjust RV1204 for 62.936 (4f_H) ± 0.1 kHz.



PILOT CANCEL

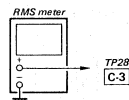
RV1203 = D-2

1. Input a V_{PILOT} of set-up signal to TP21.
2. Set the MAIN MODE.
3. Adjust RV1203 (PILOT CANCEL) so that the output from pin 40 of IC1201 becomes minimum by observing it by observing it by using an oscilloscope and viewing it through a filter (f_H = 15.734 kHz).
4. Confirm the voltage pin ⑨ of IC1201 is 0 V dc.

(L-R) LEVEL

RV1205 = B-1

1. Input a V_{SUB} + V_{PILOT} of set-up signal to TP21.
2. Set the MAIN MODE.
3. Connect a RMS meter to TP28 (NR-IN).
4. Adjust RV1205 (L-R GAIN) for 489 ± 15 mVrms.



VARIABLE DE-EMPHASIS

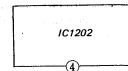
RV1206 = E-3

1. Set RV1206 (VD ADJ) and RV1210 (SEPARATION) to the mechanical center.
2. Input sine wave of 300 Hz (-21.0 dBs) to TP28 (NR-IN). At this point, let the level of TP27 (NR-OUT) become V₁.
3. Input sine wave of 8.0 kHz (-13.9 dBs) to TP28 (NR-IN). At this point, let the level of TP22 (NR-OUT) become V₂.
4. Adjust RV1206 so that the relationship between V₁ and V₂ become V₂ = V₁ - (11.3 ± 0.3) dBs.

NOISE REDUCTION

RV1207 = D-3

1. Adjust RV1207 to obtain 837 ± 15 mV dc, with connecting the digital multimeter to R1229 as shown Fig. A.



IC300 = C-3, CV443 = D-1, CV358 = D-2

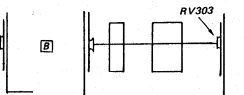
(approx. 5V) to pin ③ of IC300
bar signal.
the pin ① and ② of IC300

in the stable color picture.

bar signal.

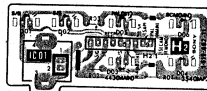
in the stable color picture.

RV303 = B-1



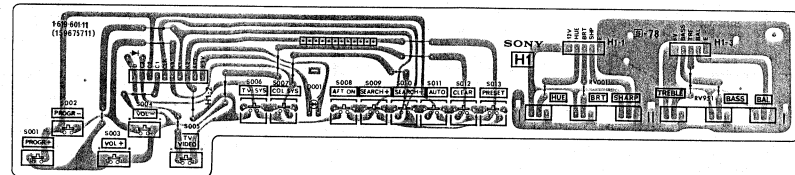
H2

[INDICATOR]



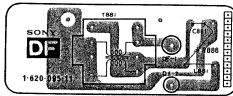
H1

[CUSTOMER CONTROL]



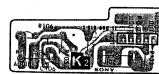
DF

[BLK]



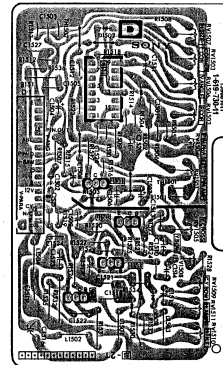
K2

[AUDIO, VIDEO INPUT]



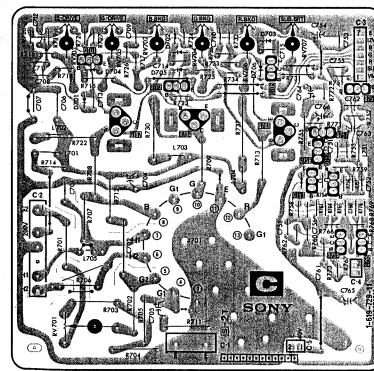
D

[PIN CTRL, Y. BOW]



C

[R.G.B OUT]



Sony Corporation

SAP VCO

RV1201 = A-2

PILOT CANCEL

RV1203 = D-3

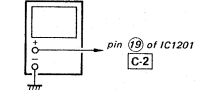
NOISE REDUCTION

RV1207 = D-3

1. Input a $5f_H$ (76.67 kHz), 0.42 V_{p-p} sine wave signal to TP21 (MPX IN).
2. When let the high level (move then 2.5 V dc) to pin ⑭ of IC1201.
At this point, let the DC current voltage to pin ⑳ of IC1201 to becomes Va.
3. When let the low level (0 V) to pin ⑭ of IC1201.
At this point, let the DC current voltage to pin ⑳ of IC201 to becomes Vb.
Adjust RV1201 (SAP VCO) so that Vb becomes $V_b = V_a \pm 0.1$ V dc.

1. Input a V_{PILOT} of set-up signal to TP21.
2. Set the MAIN MODE.
3. Adjust RV1203 (PILOT CANCEL) so that the output from pin 40 of IC1201 becomes minimum by observing it by observing it by using an oscilloscope and viewing it through a filter ($f_H = 15.734$ kHz).
4. Confirm the voltage pin ⑰ of IC1201 is 0 V dc.

digital multimeter



1. Adjust RV1207 to obtain 837 ± 15 mV dc, with connecting the digital multimeter to R1229 as shown Fig. A.

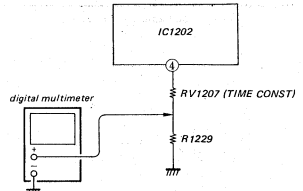


Fig. A